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SELANDER, R.K.

1953 (PART) - 1954 (PART)

1- MISCELLANEOUS

CALIFORNIA, DILLON BEACH

JUNE 28-JULY 2, 1953

CATALOGUE NOS. 1530 - 1539

2- MÉXICO, CHIAPAS

SEPTEMBER 28-NOVEMBER 7, 1953

CATALOGUE NOS. 1540 - 1729

JOURNAL

SPECIES ACCOUNTS

BIRDS

3- MISCELLANEOUS

CALIFORNIA, BERKELEY

JANUARY 27-30, 1954

CATALOGUE NOS. 1730, 1731

4- MÉXICO

MARCH 8 - JUNE 26, 1954

CATALOGUE NOS. 1732-2493

* JOURNAL

* SPECIES ACCOUNTS

BIRDS

* in next volume

SELANDER, R. K.

MISCELLANEOUS

CALIFORNIA, DILLON BEACH
JUNE 23 - JULY 2, 1953

CATALOGUE NOS. 1530 - 1539

R. K. Selander,
1953

Dillon Beach, sea level, 4 mi. W Tomales, Marin Co., California.

June 28, 1953

1530 Bufo boreas

1531 Rana aurora draytoni

July 1, 1953

1532 Hyla regilla

1533 " "

1534 " "

July 2, 1953

1535 Rana aurora

1536 " "

1537 Bufo boreas

1538 "

1539 ♀? Scapanus latimanus — Found dead in water tank. 187-43-20. — .

SELANDER, R. K.

MÉXICO, CHIAPAS
SEPTEMBER 28 - NOVEMBER 7, 1953

CATALOGUE NOS. 1540-1729

JOURNAL

SPECIES ACCOUNTS
BIRDS

SELANDER, R. K.

MÉXICO, CHIAPAS

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SPECIES ACCOUNTS

BIRDS

R. K. Selander,
1953

Zapotal, 1850 feet, 3 mi. S Tuxtla Gutiérrez, Chiapas, Mexico.

Oct. 2, 1953

1540 ♂ ad. Momotus mexicanus iris red Testes ○ some fat. 102.7 gms.

1541 ♂ jv. Turdus grayi iris brown legs blue-slate S.N.O. Testis ○ 76.8 gms

1542 ♂ ad. Caloicitta formosa T= ○ iris dull brown – bluerish cast to eye ball legs black "palm" yellow 183.5 gms

1543 ♀ ad. " " iris brown with blue cast overlying it. "palm"-yellow-orange ova ⊛ 183.9 gms

1544 ♀ ad. Momotus mexicanus iris red ova: ⁂ 99 gms

1545 ♀ jv. Thryothorus pleurostictus ovary ○ Dry hillside 17.5 gms

1546 ? ad. Caloicitta formosa iris same as 1542-3 "palm" yellow - legs black 184.5 gms

1547 ♀ jv. " " ovary ⊛ S.N.C.O. 176.9 gms

1548 Tree frog [Hyla baudini] Found on forest floor during Rain.

1549 ♂ ad. Caloicitta formosa iris brown Testis ○ 194.0 gm.

1550 Sex? jv. Thryothorus pleurostictus S.N.O. 17.6 gms

3 mi. ENE Tuxtla Gutiérrez, 1800 ft., Chiapas, Mexico.

Oct. 3, 1953

1551 ♀ ad. Caloicitta formosa iris same as # 1542 "palm" yellow - legs black 170.6 gms.

Skull completely ossified except for one patch like this ○
I believe it is adult anyway. Ovary is adult in appearance = ⊛

1552 ♀ jv. Caloicitta formosa iris → ◎ blue / brown } rubra eyeball with blue cast Legs black "palm" yellow 167.7 gms

Skull ossified except for 2 patches, each 10 x 6 mm. ovary ⊛

iris dull brown

1553 ♀ jv. Thryothorus pleurostictus 16.6 gms

1554 ♀ ad. Megarhynchus pitangua iris dark brown Legs slate-black 70.1 gms

ova minute

3 mi. ENE Tuxtla Gutiérrez, 1800 ft., Chiapas, México

Oct. 3, 1953

1555 ♀? jv. Calocitta formosa 164.0 gms.

Zapotal, 1850 ft., 3 mi. S Tuxtla Gutiérrez, Chiapas, México.

Oct. 5, 1953

1556 ♀ ad. Icterus pustulatus iris brown legs & feet light slate blue ova minute 44.0 gms.

1557 ♀ jv. Arremonops rufivirgatus iris dull brown legs light buff ovary ○ 20.6 gms.

1558 sex? ad. Wilsonia pusilla fat 7.2 gms.

1559 ♂ ad. Calocitta formosa iris dull brown with blue cast "palm" gold. Testis ⬭ 210.2 gms.

1560 ♀ ad. Empidonax ~~abbigularis~~ minimus ovary small 9.9 gms.

1561 ♂ ad. Nuttallornis borealis Testis ⬭ fat 31.8 gms.

1562 ♂ ad. Calocitta ~~bullata~~ formosa Testis ○ 203.9 gms.

1563 ♀ jv. " formosa Skull with 2 unossified patches 10 × 8 mm. 160 gms.

3 mi. NNE Tuxtla Gutiérrez, 1900 ft., Chiapas, México

Oct. 6, 1953

1564 ♂ jv. Calocitta formosa Testis ○ "Palm" gold 168.7 gms.

1565 ♂ ad. " " Testis ○ 184.1 gms.

1566 ♀ jv. " " ovary ⬭ Two large unossified patches in top of skull.

1567 ♂ Zenaida ~~Zenaidura~~ asiatica iris eyeball orange feet & legs red Testis ○

1568 ♂ Aratinga canicularis Testis ⬭ 77.7 gms.

1569 ♀ ad. Passerina ~~ciris~~ versicolor ova minute

near Sumidero Gorge, 4800 ft., 10 mi. N Tuxtla Gutiérrez, Chiapas, México

Oct. 7, 1953

1570 Lizard [Sceloporus variabilis] in rain forest on ground.
iris dull grayish brown
1571 sex? jv. Xanthoura yncas 2 unossified patches 10 x 6 mm. 94 gms.
1572 sex? ad. Icterus chrysater Feet & legs blue-slate 51.2 gms.

1.5 mi. SE San Fernando, ~~3000~~ 2500 ft., Chiapas, México

Oct. 8, 1953

1573 ♀ ad. Tityra semifasciata Base of bill pink ova

Santa Rita, 3000 ft., 5 mi. N San Fernando, Chiapas, México

Oct. 10, 1953

1574 ♀ ad. Phloeoceastes guatemalensis iris yellow ovary

Oct. 11, 1953

1575 ♂ Cyclarhis gujanensis Testis
1576 ♂ Xiphorhynchus flavigaster Testis
1577 ♂ ad. Saltator atriceps Testis
1578 ♂ ~~Geotrygon~~ Columbigallina talpacoti albifacies Testis

Oct. 12, 1953

1579 ♂ ad. Calocitta formosa Testis 188.7 gms.

Oct. 13, 1953

1580 ♂ jv. Xanthoura yncas T=O iris yellow 2 unossified patches in skull 12 x 9 mm. 99.0 gms.
1581 ♂ jv. " " " " Testis " " " " 99.0 gms.
1582 ♂? Trogon collaris
1583 ♀ Gymnostinops montezuma Skull not ossified in center ovary Lore-region pink-blue

Santa Rita, 3000 ft., 5 mi. N San Fernando, Chiapas, México.

Oct. 13, 1953

1584 ♀ ad. Gymnostinops montezuma — iris brown, ovary, Skull ossified, lore pale blue-green

1585 ♀ jv. Saltator atriceps — ovary

1586 ♂ dd.? Xanthoura yncas T = o — iris bright yellow — 97 gms

1587 ♀ jv. " " — iris goldish-yellow, S.N.O., ovary — 80 gms.

Oct. 14, 1953

1588 ♀ Piaya cayana — ovary — Skull not ossified, stomach: lepidoptera larvi

1589 ♂ Trogon violaceous — Testis o

1 mi. N San Fernando, 2600 ft., Chiapas, México

Oct. 15, 1953

1590 ♀ ad. Calocitta formosa — ovary — 196 gms.

4 mi. S Tuxtla Gutiérrez, 2800 ft., Chiapas, México

Oct. 16, 1953

1591 Lizard — on vertical rock cliff — 2800 ft. } Scelaporus variabilis

1592 Lizard — on path at about 1900 ft., }

1593 ♂? ad. Dendroica magnolia — not very fat — 7.6 gms.

1594 ♀ jv. Empidonax difficilis X

1595 ♂ ad. Empidonax hammondii — Testis o — Mod. fat

1596 ♀ ad. Thryothorus pleurostictus — ovary minute — 19.4 gms.

1597 ♀ jv. " " — ovary

1598 ♂ Dendroica magnolia — Testis o

1599 sex? ad. Empidonax minimus

1600 ♀ jv. Piranga ludoviciana — ovary minute

1601 ♀ ad. Thryothorus pleurostictus — ovary — old brood-patch

1602 ♀ ad. Calocitta formosa — ovary — 193.5 gms

1603 ♀ jv. " " — large unossified areas in skull — 196 gms

4 mi. S Tuxtla Gutiérrez, 2800 ft., Chiapas, México
Oct. 16, 1953

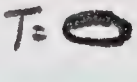
1604 ♀ jv. Calocitta formosa — 2 unossified areas 8×10 mm. ovary — 186 gms
1605 ♂ ad. Turdus grayi — Testis ○

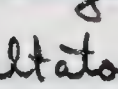
2 mi. NE Tuxtla Gutiérrez, 1800 ft., Chiapas, México
Oct. 17, 1953

1606 Lizard [Basiliscus vittatus] — on sand along river
1607 Snake [Drymarchon corais] — " " " "
1608 ♂ jv. Dendroica virens? — Mod. fat — Testis ○
1609 ♂ jv. Wilsonia pusilla — Little fat — Testis ○
1610 ♂ ad. Polioptila caerulea — Testis ○
1611 ♂ Dendrocopos scalaris — Testis ○
1612 ♂ Empidonax minimus — Testis ○
1613 sex? Icterus pustulatus
1614 ♀ ad. Tyrannus melancholicus — ovary
1615 ♀ ad. Turdus grayi — iris red, ovary — area around eye, loras, & bill green
1616 ♂ Piaya cayana — Testis ○ ! Two area ± 5×2 mm. unossified on skull
1617. ♀ ad. Calocitta formosa* — ovary — 196.5 gms
1618 ♂ ad. " " — Testis ○ — 192 gms.
1619. ♂ jv. " " * — Two large unossified Testis ○ areas in skull — 180.8 gms
1620 ♀ ad. " " *? — ovary — 172 gms

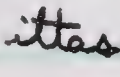
* from flock of 4 birds

San Pedro Munis, 3000 ft., 9 mi. NE San Fernando, Chis., Mex.
Oct. 19, 1953

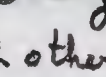
1621 ♀ ad. Xanthoura yucas — iris bright chrome yellow — ovary — 99 gms
1622 ♂ ad. " " — iris as in #1621 — T=  — 108 gms
1623 ♀? jv. Falco sparverius — (specimen in typical ♂ plumage) — S.N.C.O. — ovary
1624 ♀ ad. Calocitta formosa — underlying crest feathers fell out in skinning — 175 gms
1625 ♀ ad. " " — ova — 191 gms
1626 ♀ jv. " " — ovary — Large unossified areas in skull. — 195.5 gms
1627 ♀ ad. " " — ovary — 179 gms.
1628 ♀ (ad.?) " " — ovary — Skull completely ossified! — 166.7 gms
1629 ♀ ad. " " — ovary — 190 gms.

1630 Sex? jv. ? Pheucticus ludovicianus
1631 ♂ Aratinga holochlora — Testis  — Mod. fat
1632 ♀ ad. Saltator atriceps — ovary

2 mi. E Santa Cruz, 8 mi. N San Fernando, 3500 ft., Chis., México
Oct. 20, 1953

1633 ♂ Momotus mostmota — iris red — S.O. — Testis
1634 ♂ ad. Sittasomus griseicapillus — " " — Testis  S.O.
1635 ♀ (ad.?) " " — ovary — Few small unossified spots in skull.
Skull only 1636 Felis sp. — ♀ and with other parts of skeleton near small stream in rain forest. — 3000 ft.

Santa Cruz, 18 mi. N San Fernando, Chis., Mexico
Oct. 20, 1953

1637 ♀ jv. Campylorhynchus zonatus — iris reddish brown, light — Feet yellow buff — ovary  — 34.6 gms
1638 ♀? jv. " " — iris bluish gray — no ossification — Legs yell. buff. — 35.7 gms

R. K. Selander, 1953

San Fernando, 2500 ft., Chiapas, México

Oct. 20, 1953

1639	♀ jv.	Calocitta formosa	large unossified areas (±9 x 8 mm) ovary	187 gms
1640	♂ jv.	" "	Testis	190 gms.

Tonalá, 500 ft., Chiapas, México

Oct. 23, 1953

1641	♂	Heleodytes chiapensis	Bull's horn acacia Testis ad.?	51.0 gms.
1642	♀	" "	ovary ad.?	45.2 gms.
1643	♂ jv.	Icteria virens	Testis	
1644	♀ ad.	Calocitta formosa	ovary	189.7 gms.
1645	♀ (ad?)	" "	Two unpilloned spots but bone double, ovary	201.0 gms
1646	♂ jv.	" "	Testis	182.5 gms
1647	♂ jv.	" "	Testis skull all but ossified	177.5 gms.

East side Tonalá, 180 ft., Chiapas, México

Oct. 24, 1953

1648		Iguana iguana	Underparts and stripes on sides	yellow green
1649		Lizard [Ameiva undulata]		
1650	♀ jv.	H. chiapensis	ovary only ossification a small patch post.-center-fat on breast	50.0 gms
1651	♀ jv.	" "	ovary No ossification - little fat	44.8 gms.
1652	♀ ad.	Platypsaris aglaiae Becard	ovary	
1653	♂	Pteroglossus torquatus	Testis	

SE side Tonala, 180 ft., Chiapas, México

Oct. 25, 1953

1654	♀ ad.	Heleodytes chiapensis	ovary	44.9 gms
1655	♂ jv.	" "	Testis	53.8 gms.
1656	♂ jv.	" "	Testis	46.9 gms.
1657	♂ jv.	" "	"	54.2 gms.

R.K. Selander, 1953

SE side Tonalá, 180 ft., Chiapas, México
Oct. 25, 1953

1658	♀ ad.	Heleodytes chiapensis	ovary	44.9 gms.
1659	♀	Mo~~P~~motus mexicanus	Skull ossified	ovary
1660	♂	Buteo magnirostris	Testis	
1661	♀ ad.	Icteria virens	ovary	Not much fat.

~~Oct. 2~~

3½ mi. S Tonalá, 180 ft., Chiapas, México
Oct. 26, 1953

1662		Iguana [Ctenosaura similis]	Taken from top of large wasp nest	
1663	♀ jv.	Heleodytes chiapensis	Very little ossification Iris dull brown - Some fat	43.9
1664	♀ ad.	" "	iris full reddish brown ovary	45.8
1665	♂ jv.	" "	iris pale dull brown T= ○ Skull partly ossified	52.1

3 mi. S Tonalá, 180 ft., Chiapas, México
Oct. 26, 1953

1666	♂ jv.	Heleodytes chiapensis	Testis ○ ~~iris dull brown~~	49.8 gms. ~~43.9 gms.~~
1667	♀ jv.	" "	partial ossification iris dull blue-gray ovary	38.8 gms.
1668	♀ jv.	" "	partial ossification iris dull brown ovary ○	—
1669	♂	" "	iris full red-brown T= ○ Two unossified spots ○○	55.0 gms.
1670	♀	" "	iris full brown-red Two spots ○○ ovary	44.4 gms.
1671	♀	" "	iris full reddish brown ovary Two spots ○ but hard	47.6 gms.
1672	♂ jv.	" "	Slight ossification T= ○ iris lt. brown-~~red~~ some red.	47.0
1673	♂	" "	Two clear but hard spots ○ iris full red-brown T= ○	53.5
1674	♀ jv.	" "	no ossification iris pale brown ovary	39.9
1675	♀	" "	Two hard, clear spots ○ iris full reddish brown ovary	46.0
1676	♂	" "	Two hard, clear spots ○ T= ○ iris full reddish-brown	48.9
1677	♀? jv.	" "		39.7

R. K. Selander, 1953

6 mi. S Tonalá, 180 ft., Chiapas, México

Oct. 26, 1953

1678 ♂ Heleodytes chiapensis T=O iris brownish red-full 2 skets 3 mm. diam. unoss. but hard 54.7

1679 ♀ (ad?) " " iris full red-brown ovary Skull same as 1678 : ad.? 44.1

1680 ♀ (ad.?) " " iris full reddish-brown Skull ½ ossified ovary 44.3

1681 sex? jv. " " iris light brown - some red. slight ossification 42.8

Tonalá, 180 ft., Chiapas, México

Oct. 26, 1953

1682 ♀ jv. Heleodytes chiapensis O = iris dull reddish-brown partial ossification 46.4

1683 ♀ " " ovary Two hard, clear spots iris reddish brown 49.6

1684 ♂ jv. " " No ossification T=O : white iris dull gray-brown 49.5

Oct. 27, 1953

1685 ♂ jv. Heleodytes chiapensis upper tail coverts all ensheathed but lost iris dull brown T=O : white partial ossification 53.0 gm.

Oct. 28, 1953

1686 Iguana [Ctenosaura similis] Taken in hotel room!

La Polka (25 ft.), Chiapas, México

Oct. 28, 1953

1687 ♀ jv. Heleodytes nigricandatus ovary iris reddish brown - full Feet bluish slate 25.6 gm.

1688 ♀ jv. " " iris full rather dull reddish brown ovary Feet same as 1687 25.9 gm.

1689 ♀ jv. Calocitta formosa ovary 179.5

Tonala, 180 ft., Chiapas - Oct. 29, 1953

Skin + skeleton 1690 ♀ Nasua narica - Was house-pet at Hotel Gonzalez for "15 days". Taken 15 days ago at a "rancho" in the "monte" "near" ~~[illegible]~~ Tonalá, Chiapas and brought alive to the hotel. Name of the Rancho is Rancho Huisachal (see map). Unable to get measurements because hotel owner had it skinned before I got to it.

(Note: Skin rotted and was discarded. Was very fat and no gasoline was available for cleaning)

2 mi. SSE Tonalá, 150 ft., Chiapas, México

Oct. 30, 1953

1691 ♀jv. Heleodytes chiapensis ovary ● iris brown with gray outer ring skull less than partially ossified 44.7 gms.

1692 ♂ad. Calocitta formosa Testis ○ 205.1 gm.

1693 ♀ad. Aimophila ruficauda Hedge row ovary ●

SW edge Tonalá, 180 ft., Chiapas, México

Oct. 30, 1953

1694 ♀jv. Heleodyter chiapensis iris brown ovary ● partial ossification 44.1 gm.

1695 ♀ad. ~~Tyrannus melancholicus~~ Tyrannus crassirostris ovary ●

1696 ♂ad. Icterus pustulatus Testis ○

1697 ♀ Falco sparverius skull not completely ossified ovary ● very fat

Oct. 31, 1953

2-3 mi. NE Puerto Arista 50 ft., Chiapas, Mexico

1698 ♂jv. Heleodytes chiapensis T=○ No ossification 45.8 gms.

1699 ♂jv. " " T=○ less than partial ossification iris red-brown ringed with buff 55.7 gms.

1700 ♂ " " T=○ iris full red-brown Two unossified spots ○ 50.1 gms.

1701 ♀ " " iris full light red-brown Two clear cut thick spots ○ ovary ● 48.1 gms.

1702 ♀ " " one clear cut thick spot on right side ○ ovary ● 47.9 gms.

1703 ♂jv. " " partial ossification iris dull brown T=○ 54.1 gms

1704 ♂jv. " " very slight ossification around edges Testis = ○ ——

1705 sex?jv. " " less than partial ossification 42.3

1706 ♀jv. " " iris full brown ovary ● 42.6

6 mi. NE Puerto Arista, 75 ft., Chis., Mexico

1707 ♀ad. H. chiapensis ovary ● iris full red-brown - Complete ossification 43.1

1708 ♂ " " Two unossified spots ○ iris full red-brown T=○ 51.2

1709 sex? " " partial ossification iris full red-brown 40.7

1710 ♂jv. " " T=○ slight ossification around edges 49.7

5 mi. SW Tonalá, 100 ft., Chiapas, Mexico
Oct. 31, 1953

	1711	♂	Nyctidromus albicollis	Testis ○	
	1712	♀	" "	ova ⊙⊙ oviduct enlarged slightly	
alcoholic	1713		Heleodytes chiapensis		
"	1714		" "		
skeleton	1715	♂ ad.	" "	Testis ○	52.3 gms.
	1716	sex?	" "	iris brown partial ossification	43.6 gms.
skeleton	1717	♀	" "	ovary ⊙ iris full red-brown 2 small unossified spots	44.0 gm.
"	1718	♀	" "	" " " " "	42.7
	1719	♂? jv.	" "	partial ossification	48.9
	1720	♂	" "	Testis ○ iris full red-brown Two clear, hard spots ○	48.3
	1721	♀ jv.	" "	No ossification ovary ●	
	1722	♀ ad.	Caloscitta formosa	ovary	193.5
	1723	♂ ad.	" "	Testis	——
skeleton	1724	♀	" "	ovary oviduct Skull not completely ossified	
	1725	♀	Amazona albifrons	Ova ⊙⊙	

Tonalá, 180 ft., Chiapas, México
© Nov. 2, 1953

skeleton	1726	sex?	H. chiapensis	iris full red-brown	47.9
alcoholic	1727	jv.	" "	iris dull drab brown with blackish brown	
	1728	♂ jv.	Caloscitta formosa	Two clear spots: ○ Testis ○	208.5
	1729	♀ ad.	" "	ovary	209.0

JOURNAL

R. K. Selander,
1953

San Francisco, Calif., to Tuxtla Gutierrez, Mexico

September 28 — Left San Francisco International Airport on Western Airlines flight to Los Angeles at 6:00 P.M. Baggage consisting of 2 suitcases, a sleeping bag, a shotgun in case, and 34 pounds of ammunition. Arrived in Los Angeles at 7:45. At 10:30 P.M., I left Los Angeles on the Ran American (Mexicana de Aviacion) flight #583 to Mexico City. Arrived at 7:00 A.M., Sept. 29.

Sept. 29 At the office of the Aduana (Customs) at the airport I was required to show my turista card and vaccination certificate and to give an address where I could be reached in Mexico City. All my gear, with the exception of the gun and case of ammunition, was only hastily examined and given to me. Upon showing my 1952 gun permit I was told that it had expired (or at least was no longer valid) and that a permit from the "Military District #1" would be required.

At the Embajada Americana (Reforma and Lafragua, Phone: 35 95 00) I contacted a Mrs Ortega, an American who is married to a Mexican. She seemed smart and alert and seemed very understanding when I explained the problem. However, she referred me to a Mr. A. Slone, whose office

Mexico City, Mexico

Sept. 29 is on the 10th floor of the building. After I had explained the situation, he said that a permit would have to come from General Sanchez Lamego, Repartamento de la Industria Militar, Tecamachalco (=an area behind the race track), Phone: 20 37 45. He called General Sanchez Lamego's secretary, Sra. Montalvo, and explained my situation. He advised me to get over to the General's office at once. At the Industria Militar office I found the General out of his office so I explained again the deal to Sra. Montalvo. She speaks a few words of English but not quite enough to get the full idea of what you are after). after a half-hour's waiting a *Sr. Rubio walked in the office. He speaks very fine English and is acquainted with Alvarez del Toro in Tuxtla. He is ~~possibly~~ the ~~production manager~~ chief of construction of the Industria Militar. ~~On his advice~~ It was his advice that I obtain the permit at the office of the Secretaria de la Defensa Nacional, which is located about ½ mile from the Industria Militar building but in the same general area (Tecamachalco). A lieutentant who works in General Sanchez Lamego's office was assigned to drive me up to the Defensa

* Tte. Cor. Ing. Cons. Ignacio García Rubio Chief of Bldg. Construction, Dept. de la Industria Militar

Mexico City, Mexico

Sept. 29 Nacional building and to help me obtain the permit. He spoke only a few English words but was very sympathetic and showed several signs of being disgusted with all the red-tape we got into at the Secretaria de la Defensa Nacional offices. After running from office to office (with the Lt. handling the whole deal) we finally got the signature of General Juan Beristain Ladron de Guevara, El Gral. de Brig. D.E.M. Jefe del E.M., on a mimeographed form-letter-type permit which allows me to use and carry the gun in Mexico. (Without help I don't doubt but that several weeks or months would be required to run through the procedure in getting a permit of this type. The Lt. carried my papers from office to office and placed them on top of the piles of similar documents — so that signatures and O.K.s were had quickly).

After getting the permit I took a taxi to the aeropuerto, expecting to pick up the gun and shells — but apparently another permit is required, since while my first permit (from the Secretaria de la Defensa Nacional) allows me to use the gun it says nothing about actually importing it (i.e. getting

Mexico City, Mexico

Sept. 29

it through the Aduana office). I was told by the chief Aduana officer (an American-hater if I ever saw one) that I must get permission to import the gun and ammunition from Sr. Moreno Lopez, Subdirector of the Direccion de Aduanas, 4th floor of the Palacio Nacional (in the Plaza). At that office I contacted Sr. Moreno Lopez — but he speaks no English. However an aide (?) informed me that the Subdirector of the Direccion de Aduanas could not issue orders to the aeropuerto Aduana unless I obtain a permit for importation from General Sanchez Lamego, Repartamento de la Industria Militar ⟶ back where I started!!

Next I contacted Mr. A. Shone at the Embajada Americana. He in turn again called Sra. Montalne and explained the situations. He was told by her that I should be at the office of General Sanchez Lamego at 9:00 A.M. tomorrow with a request in writing.

With this development I cancelled my reservation on the Mex. de Aviacion flight to Tuxtla which was scheduled for

Mexico City, Mexico

Sept. 29 6:10 A.M. tomorrow (Sept. 30) and made a reservation on the 6:10 A.M. flight on Oct. 1.

In talking to Mr. Shone I mentioned having gotten some hints at the aeropuerto Aduana office ~~to the effect~~ that duty would be charged on the gun and ammunition. He said that nothing can be done if the Mexicans decide to charge duty — it apparently is their privilage to do so on any possession brought into Mexico. Shone felt that it would be wise to pay the duty, if in fact it is charged, since he thought it would not be excessive.

Returned to Hotel Geneva (having registered there before going to the Embajada early this morning). Have room for $30.00. Borrowed a typewriter from Travel Bureau and wrote a request which I will give to General S. Lamego tomorrow morning. Letter was drafted from several other letters which I have, along with the help of the trusty dictionary. I threw the whole works about science and the museums in there, so it should be satisfactory.

Sent telegrams to Dr. Pitelka and to my wife. Had dinner ($12.00), then went up to room to get my papers sorted and write notes. Bonnie called from San

R. K. Selander,
1953

Mexico City, Mexico

Sept. 29 Francisco at about 10:00 P.M. — Left call for 7:00 A.M.

Sept. 30 Arrived at the Industria Militar at 9:00 A.M. After a short wait in the office of General Sanchez Lamego I was able to get a permit from a Colonel (didn't get the name) which authorized me to take the gun and shells into the country. From there I went to the Direccion de Aduanas at the National Palace. While attempting to get into see Moreno Lopez, the Subdirector I was side-tracked into the office of a Mr. Achuza (spelling?). After 1½ hours wait I was given an order directing the Aduana office at the airport to turn over the equipment to me. At the Airport a Mr. Gustavo Piña, a chief of that office who speaks no English, said that he could not turn over the things unless a man from the Defensa Nacional was present to make an inspection. Apparently no one was available at the office at the time (2:00 P.M.) so after much talking and many conferences, that part of the deal was skipped. Instead the local customs men inspected gun and shells. I was charged a customs duty of 207.03 pesos despite my insisting that the equipment was to be used for scientific purposes and was to be returned to the U.S. at the end of my stay in Mexico.

Mexico City, Mexico

Sept. 30 At that point I was thankful to get the things at almost any price.

Since the Forestal y Caza office closed at 2:30 P.M., I was unable to get down there to see about a permit. Decided to risk using my old permit if questioned. Returned to Hotel Geneva where I concealed the gun in the sleeping bag and removed the labels from the ammunition box, replacing them with labels stating that the box contained "sports equipment." Decided this would avoid any trouble getting them on the plane to Tuxtla in the morning.

Oct. 1 At airport at 5:00 A.M. Checked baggage through to plane without difficulty. Very cloudy and slight rain falling. At 5:30 I was told that there was only a 50-50 chance that the plane would be able to land at Tuxtla because of the weather. Had tickets changed so that I could get off at Ixtepec if necessary and remain the night, catching the plane to Tuxtla tomorrow. Was charged about $7.00 for excess baggage to Ixtepec. Left Mexico City at 6:30. Heavy clouds from there to Oaxaca, so I saw little of the country — just a few glimpses. Managed to get a photograph of Pico de Orizaba, however.

At Ixtepec I was told that there was only a 50-50 chance of getting into Tuxtla. Decided to take it,

Mexico City to Tuxtla Gutierrez, Chiapas

Oct. 1 although I risked having to spend the night in Tapachula (and pay the additional fare). However, the weather was O.K. at Tuxtla, although very cloudy — the plane landed at about 11:30. Got a good view of a forested hill south of the city as we came in for the landing.

Took a taxi to the Museo zoologico where I introduced myself to Sr. A. del Toro. Then drove to Hotel Rex. Room $13.00/day. Hotel is new and fairly clean. Agua pura in room. New plumbing fixtures. Alvarez suggested this rather than the Bavampok because of its ~~max~~ lower prices. After washing up I caught a taxi to Alvarez's home — 3ª Poniente 20. Talked with him for 2 hours about plans for collecting. He is to see the Governor tommorrow, provided that it doesn't rain. He can't make any plans until he has a conference with the Governor about the Museo.

Oct. 2 Went hunting at an spot about 3 miles south of Tuxtla - a place called Zapotal. This is a collection of small farms in the foothills of a small "mountain" to the south of Tuxtla. Rain falling all day - no signs of clearing. Hired a taxi to take me to the place but the car was unable to make it all the way because of the muddy condition of the road. One of Alvarez's boy-helpers at the Museo — name is Bonifacio — went with me on Alvarez's orders.

Tuxtla Gutiérrez, Chiapas, Mexico

Oct. 2 He speaks no English, but we were able to get along with[out] too much difficulty.

It is so cloudy today that I can't get a good look at the lay of the land around Tuxtla. Bank of fog-like clouds hanging on the hill sides to the south. Rain falling in a drizzle all day with occasional downpours. Hunted for 4 hours with rain falling all the while. Everything is soaked. There are good stands of forest here to the south of Tuxtla. Just south of the city on the sloping foothills the dominant vegetation seems to be a mesquite-like tree about 15-20 feet high with grassy understory blanket. Thryothorus pleurostictus is common here. In the draws along the hill it is wetter and there are extensive stands of broad-leafed trees - some of them huge. Fig tree (Ficus) and Mango are two of the species. Very dense vegetation - [redacted] rain-forest like, yet I understand from Alvarez that it is not true [redacted] rain forest, although it is wetter here than at Tuxtla. Species of birds noted were: Black Vultures - common - also seen everywhere around Tuxtla. A hundred or so at a garbage dump on the southern edge of town. Icterus pustulatus - common in many types of trees at Zapotal. Scardafella inca - about 15 seen around native huts and on the dirt road. Momotus mexicanus - 5 seen, 3 shot. Prefer

Zapotal, near Tuxtla Gutierrez, Chiapas, Mex.

Oct. 2 rather dense parts of the forest in thickly wooded places. Empidonax difficilis - 2 pair seen. Turdus grayi - one taken, others seen in fairly dense but smaller trees. Megarhynchus pitangua - common at outskirts of Tuxtla - not seen at Zapotal. Caloicitta fairly common (see species account). Hirundo rustica - several flying near garbage dump at south edge of Tuxtla. A large cacique noted - seemed all black. Cassidix mexicanus several around "farms". Polioptila (caerulea ~~sp.~~) common in drier situations - not in wetter forest patches. — Some palms present in the draws at Zapotal. (Will get photographs when rain stops.) In general, few birds were active, probably because of the heavy rain.

8 Returned to Hotel and skinned birds during afternoon. On way home collected moth on Convolvulus and a "Cala lily-like" plant near a corn field. General species - very common. Thousands of moths coming to lights in the Plaza at night, -

Lights in my hotel room periodically going out and coming on, making it difficult to work.

Oct. 3 - Up at 7:00 and out hunting again with Bonfocio. Rain not falling but very cloudy. Late in the morning rain began to fall and continued all day.

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 3 Took taxi 3 mi. ENE of Tuxtla where we hunted down toward the Rio ~~Tuxtla~~ Salvinal and back, covering about 5 miles in all. Vegetation is of a more arid character than at Zapotal. Large trees are rather uncommon & occur in small patches here and there. Extensive stands of the mesquite-like tree, like that seen on south side of town yesterday. Along the Rio ~~Tuxtla~~ Salvinal the vegetation is similar to that at Zapotal — very large trees with many vines hanging from them. Rich herbaceous understory. The gorge of the Rio ~~Tuxtla~~ Salvinal is so steep that you can only get down to the water in a few spots. Saw the Monte "Frio" = Cripto at the most NE point we went — could see the gorge of the Rio Chiapa (photo.) The other side (NE) of the Rio ~~Tuxtla~~ Salvinal gorge is steep and heavily wooded. Heard Caloaltla all along the edge of the gorge and saw them down at the bottom. - Apparently commoner there than on the SW side where I hunted and where there are fewer large trees. Thryothorus pleurostictus common all over the area we hunted, preferring spots similar to habit of Troglodytes — i.e. thickets at bases of large trees where there is a thick growth of bushes and herbs. Also occur in the mesquite-like tree mentioned above. One of commonest birds, along with Icterus pustulatus, Groove-billed Ani (common in flocks), gnatcatcher,

R. K. Selander, 1953

Tuxtla Gutiérrez, Chiapas, Mexico.

Oct. 3 Megarhychus pitangua - common in drier, more open places. Turdus grayi - one seen, others heard. Birds not too common and very quiet for the most part. Unidentifed hummingbird noted - or rather large species. Bonifacio said that the Quetzal is "common" on the "Monte Frio" = Monte Cristo.

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Shot 4 Calcutta but could only recover 3 of them, one falling in the gorge of the Rio ~~Tuxtla~~ Sabinal = Rio Sabinal - straight down 100 feet or more.

Returned to Hotel at 2:00. Rain falling hard. The streets of Tuxtla look like rivers. Progne sp. and Petrocheldon flying most of day - only stopping when rain falls the hardest. Noted 2 Turkey Vultures over town - the first seen since I arrived.

Have slightly sore throat this afternoon - Can not get my things dry from yesterdays' hunt. Everything in soggy wet from the rain and moisture in the air. Will be difficult drying specimens.

In talking to Alvarez today and yesterday I noted the following items of possible interest - (other than those dealing with jays - see species accounts).

1. He has an appointment with the governor of Chiapas on Monday - something to do with money for his Museo. The governor wants to build him a new ~~place~~ museo, so he says.

3. He has no car of any sort - and horses are very rare - "impossible to rent" - in Tuxtla.

4. The Los Angeles museum is buying a collection

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 3 of specimens from him. One specimen of each species of bird from around Tuxtla, I believe. His price is $2.00 for small birds, $3.00 for medium-sized, and $5.00 for large birds. He has had other offers from other museums.

5. Brodkorb stayed in Tuxtla a month this summer — hunting around the town — collecting mostly skeletons according to Alvarez.

6. Alvarez has a MS on the Birds of Tuxtla which includes a colored plate of each species by Alvarez himself — but he can't get it published.

7. Alvarez has hunted at Arriaga and Tonalá, the Ocozocuautla area, and in the San Fernando (= Villa Allende) area — but apparently has not visited many other places in Chiapas.

8. Irby Davis visited here and took recordings of some of his museum birds.

9. Alvarez has never heard of Lamb or Brown!!!

10. I met Dr. F. Miranda — no English at all. Got the impression that he thinks he is a big operator — Alvarez apparently thinks so — as least to judge from the way he acts around Miranda. Miranda is obviously top-man in Tuxtla with Alvarez a poor second. I can't stomach Miranda at all. I asked him for a copy of his "Vegetacion de Chiapas" and he told me I could buy it at the book-store — all the while about 50 copies were sitting on his desk!

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 3 He may have only a limited number of free copies for distribution but he could have explained this to me or said he was sorry. - Big deal!

11. Alvarez has hardly any conception of the aims of significance of systematic work. Strictly "alpha taxonomy" for him. He doesn't go to the Museo when it rains; Otherwise he is there from 9-1 and 4-6 each day. It is difficult for me to contact myself since he is so non-committal about his plans and about the Calcutta problem. For having come thousands of miles to meet & work with him I am being treated slightly cool - but in many ways Alvarez has shown some interest in the problem and in me, especially in assigning Bonifacio to act as my guide while hunting.

Met a Mexican - name of Diaz - who owns a hardware shop just 2½ blocks south of the Hotel Rex. Speaks better English than Alvarez. Said to be a graduate of the Univ. Chicago. Owns a range somewhere east of Tuxtla. Invited me to spend a few days there.

Oct. 4 Went to visit Alvarez at his home in the morning. Rain falling but partially clear at noon. Borrowed negatives & pictures of nests of Xanthoura and Calocitta, and a photo of Chordeiles minor nestling - will have copies made for Pitelka.

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 4 Alvarez has not heard from the man from Villa Allende as yet. He is to see the governor tommorow. Says that the weather is much wetter up at Villa Allende — and that when it is cloudy at Tuxtla it is raining at Villa Allende. Villa Allende is said to be in a ~~cloud~~ rain forest region — but only patches of the original vegetation remain.

Bus leaves Tuxtla for Villa Allende at 9:00 A.M., an hours ride. Bus returns to Tuxtla at 3:00 P.M. (X) every day.

Alvarez gave me a copy of his book on the Forest Animals of Chiapas.

The weather we are having now is what Alvarez calls the "northers" — continuous cloudy skies and rain - not really stormy such as it is in the summer, when it is clear in the morning but rains in the afternoon.

In the late afternoon it stopped raining for an hour or so and I walked north from the hotel towards the edge of town. Noted 10 or more black vultures sitting in trees near native huts, also many groove-billed anis, 2 Columbigallina sp., 2 green herons near small stream.

Oct. 5 Up at 5:30; still dark. Starting to get light shortly after, however. Clouds still present but higher and thinner than yesterday. No rain now. Church bells started ringing at 5:45. Roosters crowing.

Tuxtla Gutiérrez, 1800ft., Chiapas, Mexico

Oct. 5 I am going hunting up to Zapotal again with Bonifacio, who was to meet me at the Hotel at 6:00. Expect to get green jay if it stays clear. Breakfast is not served at the hotel until 7:00 A.M. so will have to get some food for breakfast at the market place or buy something here at the hotel the night before when I go out collecting this early again. Still have a loose head cold; nose running quite a bit. It has been raining a good part of the night and everything outside is dripping water. My bird specimens are giving off a terrific stench — it is difficult to get them to dry in this weather but if the sun shines I can set them on the balcony of my room and they probably will dry in a day.

Alvarez said that there is no malaria in Tuxtla but I am taking no chances. Am taking Aralen on Thursdays and Sundays and have rigged the mosquito nets over my bed. This is ~~[illegible]~~ Arid Tropical Subzone country and malaria ~~should~~ could occur here.

Fog is rising from the river to the north of Tuxtla and also from an area to the east.

——Collected 3 Caloaltta, Arremonops rufivirgatus, Capair seen in gully near Tuxtla, frequents low shrubs; 1 Wilsonia pusilla (very fat), 1 Empidonax minimus, ~~albigularis~~ (common), 1 Nuttallornis borealis, and 1 Setenus pustulatus.

Zapotal, 1850 ft., 3 mi. S Tuxtla Gutiérrez, Chiapas, Mex.

Oct. 5 The N. borealis flew from a perch high in a dead tree and caught a large insect in the air, then returned to its perch. No calls heard.

Heard several chacalacas calling high on the hill. Gnatcatchers ~~(sp.?)~~ caerulea common. Turdus grayi common.

The vegetation immediately surrounding Tuxtla is deciduous for the most part, with a mesquite-like tree occuring very commonly. At about 75-100 feet above Tuxtla to the south and just above the settlement called Zapotal many evergreen trees and shrubs appear, including fig, ~~and t~~, mango. There are several palms near Zapotal, including a few coconut palms. The forest on the crest of the "mountain" south of Zapotal is not totally composed of evergreen species, however, since a number of the shrubs and small trees are deciduous. It is predominately evergreen nevertheless. Birds either absent or under cover because of the wet weather in the thicker portions of the forest, since few were seen. No green jays noticed. May have heard C. zonatus near highest point we reached today but cannot be sure. Alvarez says Chordeiles minor occurs on the flat mesa on top of the hill above Zapotal and that "you should be able to collect 10 specimens easily." a region of scrub patches & grass.

3 mi. NNE Tuxtla Gutiérrez, 1900 ft., Chiapas, México

Oct. 6 Cloudy but no rain during the day. Hunted up along the road to Sumidero in the deciduous "forest" and schrub vegetation. Much grass and many herbs (including a tall orange composite ~~[illegible]~~) and Convolvulus) on the ground. Mesquite like-tree common along with some larger trees. Trees spaced like in an orchard in some places. Here Calocitta was most numerous. (Have photographs). Bonifacio said "tapacaminos" are common here at dusk. Noted flock of 10 Aratinga canicularis (1 specimen), many white winged doves (common in "orchard"), Icterus pustulatus, Megarhynchus pintangua (common), gnatcatcher, Thyrothorus pleurostictus, several large hawks, 1 unidentified cuckoo, Centurus sp. (common in orchard), Empidonax sp — near streambed in dense vegetation, Calocitta formosa, unidentified bunting = Passerina amoena (specimen ♀).

Alvarez said 4 Chordeiles minor were flying around the Plaza this evening hunting moths. Also, he saw 4 green jays at the Museo today.

Two Americans from the Univ. Wisconsin came into Tuxtla today and are at the Hotel Banampok. Had dinner with them, a Dr. Fawcett (sp?) and a graduate student = Armitage (sp?) (name?). They were on their way to Nicaragua via Tonalá — Tapachula in a jeep station wagon bud discovered yesterday

Tuxtla Gutierrez, 1800 ft., Chiapas, Mexico

Oct. 6 that the rain has washed out several railroad bridges between Tonalá and Tapachula so they were forced to come up to Tuxtla to wait. They expect to go back to Arriaga in a few days and see how repair on the bridges is coming. Doctor Tamaitt is after aquatic plants. He says that there is a dirt road between Arriaga and Tonalá but that it is probably in bad shape because of the rain. At present no trains are running on the Tonalá - Tapachula line. He reports that the natives at Tonalá were friendly. They will wait either at Arriaga or Tuxtla until the train is running again. Tommorow we are going up the road to the north to see the gorge of Sumidero. Had planned to go with Bonifacio to Villa Allende to look the place over but will wait a day for that.

The sky is semi-clear tonight. Perhaps the storm is breaking up.

Alvarez is sounding more & more like he doesn't expect to go up to Villa Allende. He says he has an appointment with governor tommorow. He sure in vague about going hunting. The man at Villa Allende has a ranch somewhere up near Santa Rita. Alvarez feels it would be best to stay at the ranch rather the at Villa Allende.

near Sumidero Gorge, 4800 ft., 10 mi. N Tuxtla Gutierrez, Chiapas, México.

Oct. 7 Drove up good dirt road to top of hill to the north of Tuxtla with Dr. Fawcett and his companion. About 20 Km. along the road there is a view point overlooking Sumidero Gorge — a straight drop of about 2500 ft. — terrific panoramic views from up there. The deciduous forest a grass extends on the south-facing slope up to 4700 feet or so with little change. On top, however, the land flattens out and there is a semi-rain forest there. Alvarez says it is continuous with the forest at Villa Allende. Much Convolvulus along the road. Meloids of 2 or 3 species extremely abundant on a large blue-purple flower of Convolvulus — same species on other morning glory type flowers. Collected 75 specimens, saw a like number more. Nearly 50% of the flowers (Convolvulus) had meloids on them. They were eating the petals. Birds not numerous in the forest and hunting around 11 — 1 was poor. Took 1 Icterus chrysater and a single Xanthoura yncas. Saw King Vultures (5) flying over the gorge. Also noted a Myiarchus sp., a wood pewee, Vireo sp. (large), and several Dendroica sp. Saw 2 road runners in deciduous vegetation on way up the hill. Rock wrens at same place on rocks near road.

10 mi. N Tuxtla, 4800 ft, Chiapas, México

Oct. 7 Black vultures fairly common flying above the rain forest. The rain forest proper has a thick understory of vines & herbs, making collecting difficult. Orchids and other plants growing on many of the trees.

Only was able to hunt about 2 hours in all today — birds quiet and hard to attract. Took a small lizard which was climbing from the ground to a small dead tree branch in the forest. Some of the forest has been cleared for corn — a few banana plants around corn fields — including one in bloom. Very few paths in this region so hunting was done mainly along the road & a short distance from it. I do not believe we were in true rain forest today — rather, it looked like a mixture of rain forest & deciduous vegetation, perhaps predominantly the former, however.

Learned of the murder of Dr. R. Swain, the entomologist. He was shot by a Mexican hold-up-man in a small town in Oaxaca. In the newspaper it was reported that 4 Mexicans stopped his car near this town & demanded $2000 (pesos). When he reached to his pocket for his wallet, one of the Mexicans shot him with an "escopeta" (which is a shotgun — probably a pistol or rifle, however).

Tuxtla Gutiérrez, 1800 ft, Chiapas, México

Oct. 7 Met Alvarez up near the lookout point near Sumidero — He was up there with his family and another man & his wife, Said he couldn't see the governor today because it was a holiday. Some story!.

There is an arroyo south of Tuxtla which leads to the top of the hills — the "Arroyo San Roque" or "la Toma". There is supposed to be a path from Tuxtla to the top of the hill which runs up the arroyo & through some good forest. Chordeiles minor occurs on top of the hill, at least according to Alvarez.

I am going to Villa Allende tomorrow with Bonifacio Guillen.

✓ Oct. 8 Took taxi up to Villa Allende (= San Fernando), about 11 miles NW of Tuxtla. Cost = 25 pesos. There are no hotels there but telephone is available. Bus leaves San Fernando for Tuxtla each day at 3:00 P.M. Talked with a friend of Alvarez's — a Sr. Ruben Dias — who has a farm on the west side of town. He introduced me to a Sr. Helfego Dias who will act as a guide up to Santa Rita (about 5 miles to the north in the hills). He wants 6 pesos/day. Sr. Ruben Dias has horse for the trip. Arranged to meet Sr. Helfego at 7:30 A.M. Saturday. Will camp at Santa Rita for a week.

San Fernando, Chiapas, México

Oct. 8 . Most of original vegetation around San Fernando has been removed for farming. A few patches of thick forest remain however. A mixture of deciduous and evergreen trees and shrubs. San Fernando is located in a rather narrow valley which continues to the NNW. Noted several Calcutta formosa in the deciduous forest about 1000 feet below the town. Ruben Dias said it is uncommon around San Fernando. Helfego Dias reported seeing the "urraca cabeza negra" this past week but this may or may not be true. I have a very difficult time understanding his Spanish. Took a Tityra about 1.5 mi SE of the town.

✓ Oct. 9 - Buying food and preparing for trip to Santa Rita. Alvarez has loaned me a tent, Coleman lamp, specimen box, pots, and head lamp.

✓ Oct. 10 - Up at 5:30. At 6:30 picked up supplies at the Museo and drove to San Fernando in a taxi with Bonifacio, arriving at 7:15. Met Helfego Dias. Packed part of the gear ~~on two~~ one horses and started up the valley to Santa Rita. Trip took about 1¼ hours. Passed up the valley in which San Fernando lies through land which is very similar to that around the town, a good part of it having

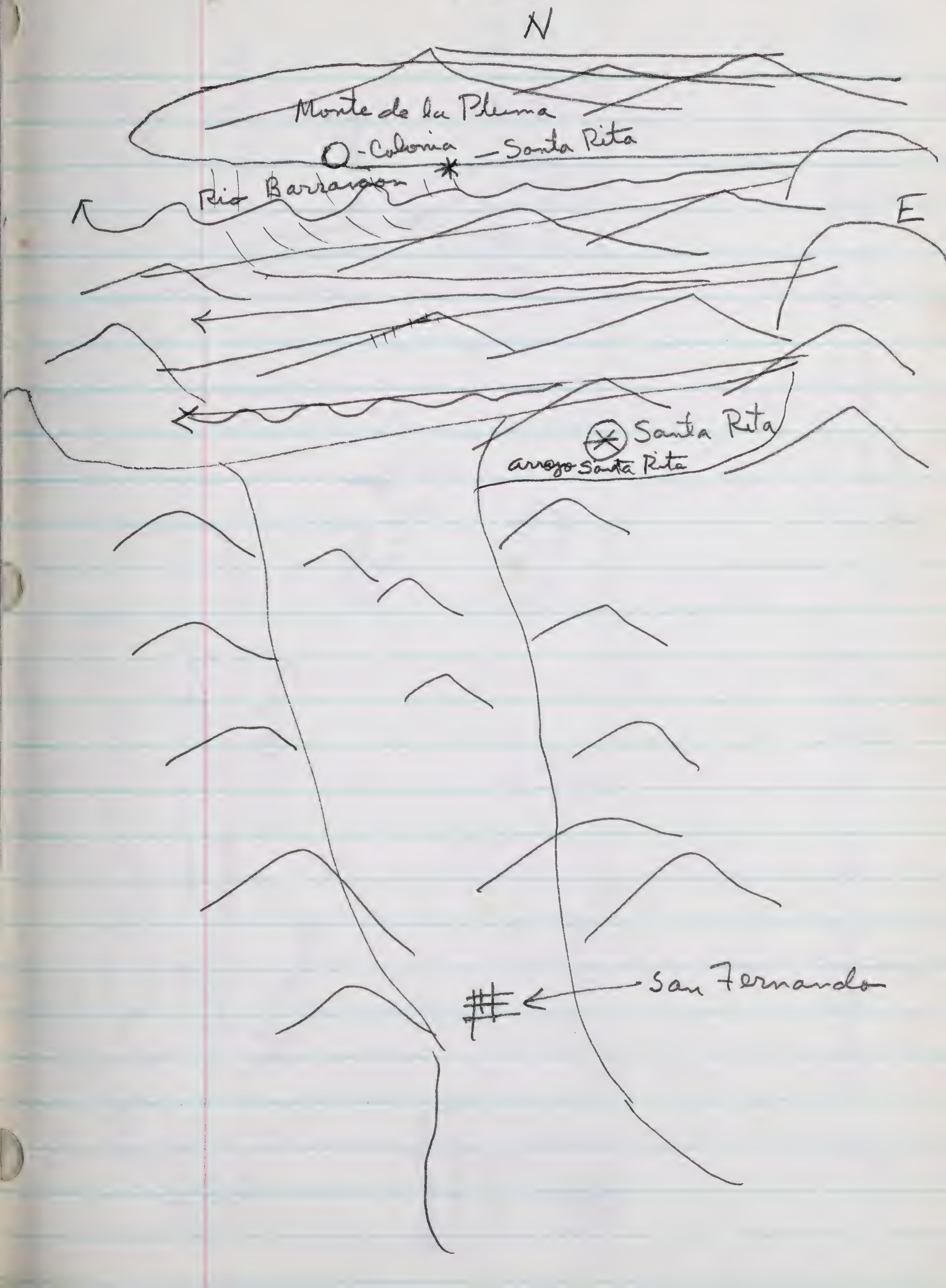
R. K. Selander,
1953

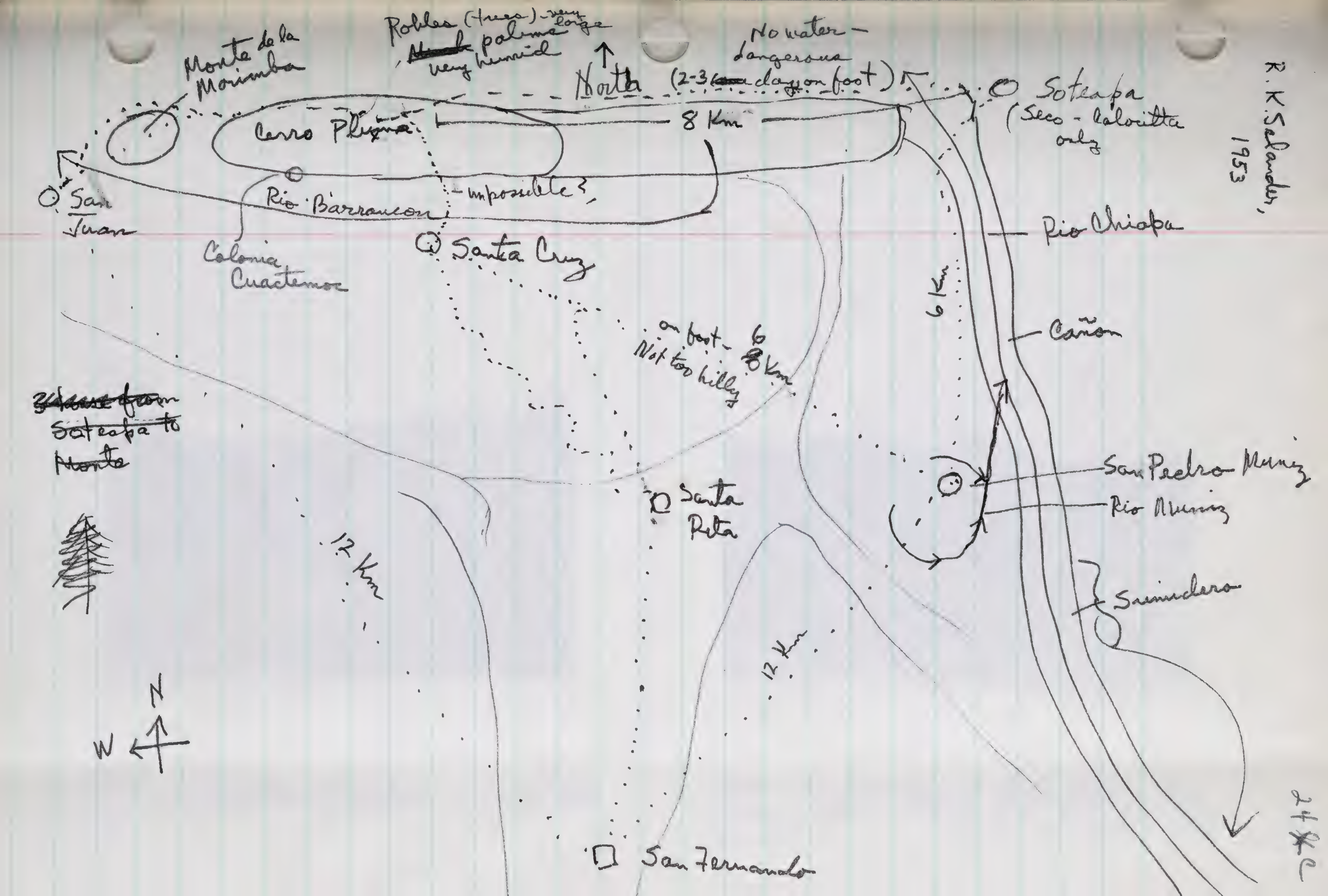
Santa Rita, Chiapas, Mexico

Oct. 10 been cleared for farming. Passed through a good stand of broad-leaved evergreen ~~[illegible]~~ forest just before we reached Santa Rita. Santa Rita is nothing but two huts ~~on a small~~ where sugar cane is boiled. There are several good sized corn fields around the place, but many good stands of forest remain. We are camped near the huts in the edge of one of these stands. ~~The Rio~~ (A map of the area is on the following page). The country around Santa Rita is rough, with numerous hills and arroyos. The valley in which San Fernando lies runs NNW and is joins another drainage area which runs almost directly west. To the north of Santa Rita about 6 miles the Monte de la Pluma runs east-west forming a steep wall bordering the large "valley" which is formed by several arroyos running in a east-west direction. Drainage is to the west with a drop-off about 7 miles west of Santa Rita. Between Santa Rita and Monte de la Pluma there are three deep arroyos, with small streams running west in each. The last of these is called the Río Barrancon, and it is the largest — about 12 feet wide at this time. Five miles NW of camp there is a settlement — Colonia Cuactemoc — where about 40 people are living,

R.K. Selander,
1953

Map of Santa Rita region, Chiapas, 24 k
México




R. K. Salander, 1953
Monte de la Marimba
Robles (trees) - very large
~~Nuch~~ palms
very humid
North
No water - dangerous
(2-3 ~~[illegible]~~ days on foot)
Soteapa
(Seco - Calocitta only
Cerro Pluma
8 Km
San Juan
Rio Barrancon
- impossible?
Colonia Cuactemoc
Santa Cruz
Rio Chiapa
6 Km
Cañon
on foot - 6 Km
Not too hilly
~~3 hours from Soteapa to Monte~~
San Pedro Muniz
Rio Muniz
Santa Rita
12 Km
Sumidero
12 Km
N
W
San Fernando

K. Salomon, 1953

View west-northwest from camp at Santa Rita, 3000 ft.

View north from camp at Santa Rita, 3000 ft., Chiapas, Mexico. Monte de la Pluma in background.

K. Salander, 1953

View north over Tuxtla. Peak indicated by arrow probably is Monte de la Pluma.

R. K. Selander,
1953

Santa Rita, 3000 ft., Chiapas, México

Oct. 10 Many single native huts are located here and there in the hills. Trails lead from settlement to settlement, hunt trails into the remaining forest patches are very few. I judge that about $\frac{1}{3}$-$\frac{1}{2}$ of the land is now planted, or was planted recently, to corn. Milpas are everywhere, even on the steepest slopes. Old corn-fields are now grown to thick grass or herbs. Bananas are grown in patches along the streams. Coffee trees are common along the streams. A few orange trees here and there near corn-fields. Noted a few piña plants - hunters. I have never seen such rough country so extensively farmed. The original vegetation appears to have been a thick evergreen forest. Patches of it remain, especially on hill tops and on some slopes. Fig trees and mangos are common trees. A few oaks on some hill tops. Also much shrubby, deciduous vegetation on slopes with grass. — a complex mixture of vegetation types — some deciduous, some evergreen. I believe the vegetation of the region was originally evergreen for the most part. Hunting is very difficult because of the thick understory of shrubby vegetation everywhere in the forests and because of the steepness of the hills. Birds include chacalaca (sp.?), Volantina jacarina

Santa Rita, Chiapas, Mexico

√Oct. 10 (on dry slopes in grass & herbs), groove-billed ani, white-lilled blackbird, Tityra semifasciata, Diphorhynchus flavigaster, Saltator atriceps, Xanthoura yncas, Cathartes aura, Cyclarhis gujanensis, Campylorhynchus zonatus, Thryothorus pleurosticus, parrots (sp?) — small, possibly Aratinga, marsh hawk (1 seen over corn field near camp), Momotus momota, Centurus sp., Phloeoceastes guatemalensis (1 specimen), Columbigallina talpacoti, Platypsaris aglaiae, Piaya cayana, Turdus sp., Icterus cacique (in flocks). Birds active and calling only in early morning & two hours before sunset (twilight is about 6 P.M.).

Hunted for 2½ hours in late afternoon. No jays heard or seen.

√Oct. 11 Hunted all day with Sr. Helfego Duran below (west) camp. 5 skinned birds by Coleman lamp.

√Oct. 12 By horse to 5 mi. N Santa Rita to a place called Santa Cruz, about 1 mi. from the Colonia. Hunted around Santa Cruz, returning to camp at 6:30. Noted a caprimulgid on path just after sunset — a large bird. Unable to collect it because of darkness.

Santa Rita, Chiapas, Mexico

√ Oct. 13 Hunted below (west) camp for several hours in early morning. No Calocitta seen or heard. Took two Xanthoura yucas from a flock of 5 or so in thick woods near the tent. Also collected one Trogon collaris at some spot. Took two Gymnostinops montezuma — this is the large cacique I have noted before. Collected one Saltator atriceps. Slightly cloudy most of day. No large jays heard until about 5:00 P.M when one called once from forest across arroyo from camp. went to investigate but couldn't locate the bird. Took two more Xanthoura in same patch of forest — flock of about 8 birds. We talked with two more Mexican farmers here — neither distinguished "urraca c. negra" from "u. c. azul." Food is running low. We have only enough for one more day. I would like to get down into lower land to the west but can't see how this is possible now — no trails into that area according to Sr. Helfego. To the east of camp about $\frac{3}{4}$ mile several hills form a wall — apparently connected with the Monte de la Pluma. Not much sense in hunting east of camp since land is similar to that around camp and elevation is about the same.

√ Oct. 14 Hunted in large circle around camp for 4 hours this morning without hearing a jay. Cloudy all day long but no rain. Out hunting again in mid-afternoon without luck

Santa Rita, Chiapas, México

Oct. 14 Bonifacio has suggested that Sr. Helfego lied about the "urracas" here at Santa Rita in order to interest me in hiring him as a guide. This may be true. Certainly Calocitta is very rare here, at least at this present time. In afternoon I collected a Piaya cayana, and a Trogon violaceus. Observed Thraupis abbas, a male Phaeoceastes guatemalensis, Turkey vultures, a Circus hudsonicus flying over camp, a large flock of parakeets or parrots headed NW high in the air over Camp.

Bonifacio has arranged for Sr. Ruben Dias to have the horses here at camp at 8:00 A.M tomorrow. We are down to one can of meat and one of vegetables. Sr. Helfego left us for San Fernando at about 1:00 P.M — I payed him 30 pesos for the 5 days he was with us. I understand that Sr. Ruben Dias will want about 60 pesos for the horses and other details having to do with hauling our gear from San Fernando to Santa Rita and back. — I also sent a note to Ruben Dias instructing him to arrange to have a taxi at San Fernando at 11:00 A.M. tomorrow to take us to Tuxtla. I took some color photos around camp and while out hunting but light is very poor for color so they may not work out too well.

Santa Rita to Tuxtla Gutierrez, Chiapas, México

✓ Oct. 15 No jays heard this morning. Rather foggy here most of the morning. Broke camp around 8:00 A.M. and traveled by horse to San Fernando. About 1 miles N of San Fernando a flock of 4 Caloicitta crossed the trail and I got one specimen - typical formosa.

Paid Sr. Ruben Diaz 53 pesos for use of horse and hauling my gear up to Santa Rita. A taxi was waiting at San Fernando. Drove to Tuxtla - ~~30~~ 28 pesos including trip to Museo zoologico to find Alvarez. Gave Bonifacio 10 pesos. Wired Pitelka and my wife. Had a long talk with Alvarez about the Caloicitta problem. He said he cannot leave Tuxtla until November. I am again staying at the Hotel Rex. Wrote long letter to Pitelka.

✓ Oct. 16 Out hunting south of Tuxtla from 7:30 until 1:30, Climbed up the Arroyo Toma to the top of the hill south of Tuxtla. Found a dry, deciduous scrub forest there with very few birds in it. Turdus grayi, Empidonax difficilis and E. ~~albigularis~~ minimus, Catharter aura, Thryothorus pleurostictus, Icterus pustulatus, gnatcatcher, and Caloicitta formosa, several migrant warblers were only birds seen. Took several lizards & many meloid beetles near Tuxtla. Took 3 panoramic shots of Tuxtla Valley - I believe you can see Monte de la Plumain one of them. Very dry up on the mountain top where there is a rather extensive plateau. Expected Chordeiles minor

4 mi South of Tuxtla Gutiérrez, ± 2800 ft., Chis., México

Oct. 15 there but saw none. It is fair habit for nighthawks however. Alvarez reports them up there.
S Kinned birds in afternoon and evening.

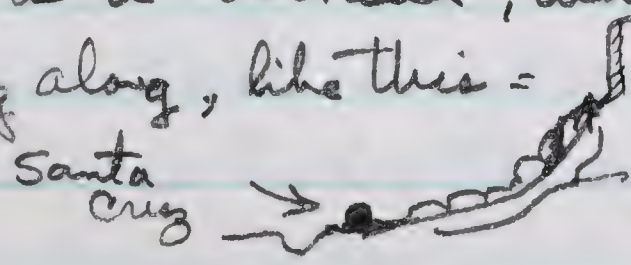
Oct. 17 Alvarez has talked with a native worker at the Botanical garden in Tuxtla – Sr. Enrique Lopez – who is from the San Fernando area and who is acquainted with that region, including the animals there. This man told Alvarez that there is a place – San Pedro Muñiz – about 3 hours on horse NE of San Fernando where one can reach the Rio Grijalva (= Rio Chiapa). The place apparently is north of the Sumidero Gorge since he says it is a flat area near the river. There is said to be a forested slope just before you reach the river. Many fruit trees said to be there (bananas and oranges, I imagine) with coffee plantations. It is probably at a fairly low altitude. This man collected a Harpy Eagle there for Alvarez some time ago. Brown jays and Calocitta are said to be common at this place, but Alvarez got nothing specific on this. I would expect Psilorhinus if the area is low – Calocitta there would be unusual. This is all the information I have at present on this locality.

More information is available on the patch of rain forest NW of San Fernando. There is a place — El Cascajo – 8 Km. NW San Fernando where the forest is made up of large trees & the climate is very moist.

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 17 A Sr. José Perez (?) in San Fernando knows the place. A

As regards elevations — I was about right for Santa Rita - 3000 ft., However, Alvarez says that the Monte de la Pluma is more than 1000 feet higher — probably 2000 feet or more higher. I have neglected the Monte de la Pluma somewhat as it did not impress me too much at the time I was at Santa Rita, Alvarez was over on the north slope for 10 days (?). He was camped in a ~~to~~ moist forest with large trees at the base of the Monte. He says the northern slope is even steeper than the south and that all the natives he questioned at the time claimed it was impossible to get up to the top. Alvarez thinks there may be a forest on top — possibly cloud forest, since he says the Quetzal ~~has~~ "sometimes comes down from the Monte" — and is taken or seen around the base, I guess. On the eastern edge of the Monte there are a few pines, acc. to Alvarez. He thinks it is impossible to climb up the Monte even a short distance and he may be right. At least on the south side the is a vertical, white (=granite?) cliff along along, like this =



Tuxtla Gutiérrez, Chiapas, Mexico

Oct. 17 Alvaro says that the top of the Monte de la Pluma is "much higher" than the plateau of Sumidero and that, in fact, the Monte de la Pluma is much the highest place around Tuxtla. He claims there is another monte near Ocozocautla which may be as high.

In light of this information I have decided on the following plan:

Monday at 4:30 A.M. I will leave Tuxtla and go to San Fernando in a taxi with Bonifacio. Aguila is to meet us there at 6:00 A.M. We will rent horse again from Sr. Ruben Diaz and head for San Pedro Muñoz. Will carry only two days food and no tent or skinning gear. Will "gut" all specimens & prepare them later in Tuxtla. If Calocitta and Psilorhinus are common on the river, I can get some idea if whether or not they are mixing. It will be good to see their habitat distribution in any ~~case~~. If I find no evidence of the black-headed jay there or on my way to that place I will attempt to circle around the Monte de la Pluma, questioning everyone I meet about possible trails up to the top. If I find nothing on this trip we can be sure that it isn't going to be possible to get the strange bird at the present time. If there is no evidence of the black-headed jay at the

Tuxtla Gutierrez, Chiapas, México

Oct. 17 San Pedro Mining area I will focus all attention on the Monte de la Pluma, since if the bird didn't have a hybrid origin the next most logical hypothesis is that it is a new species ~~from~~ isolated up there on the Monte de la Pluma and only occasionally getting down to the lower lands. — This time I must try and get some definite information on the occurrence of the black-headed jay. It will be easier since that bastard Helfego wont be along to prompt them.

Will return to Tuxtla tuesday night by taxi.

— Out hunting today along the Rio Sabinal northeast of Tuxtla. Quite a few birds for a change. The is a lot of farming all along the river — corn, sugar cane, a few bananas orange trees — and various other native crops. The is a large conifer all along the river, called the "Sabino". Took a specimen of Dendroica virens (♀), also Wilsonia pusilla, Dendrocopos scalaris, Empidonax minimus sp. - riparian -, Icterus pustulatus, Tyrannus melancholicus, Turdus grayi - common in flocks -, Piaya cayana - several seen, Polioptila - probably caerulea. Also got 4 Calocitta formosa. Shot a large snake on sand along river. Frogs common in little pools but I have nothing to preserve them in. Took a small lizard, others about 7" long, probably of same species, were seen.

Tuxtla Gutierrez, Chiapas, México

✓ Oct. 18 Bought food for trip tomorrow. Cleaned my hotel room, skinned a few specimens, including the snake I got yesterday, and wrote field notes. In late afternoon took bird specimens over to Alvarez's house for safe-keeping while I am in the mountains.

Oct. 19 By libre from Tuxtla to San Fernando, arriving at 6:30 A.M. Met there by our guide - Sr. Ruben - a man of about 30 who is acquainted with the San Pedro Mining - Monte de la Pluma - Santa Rita region. I questioned him about the black-headed jay but he reported never having seen it. He said Sr. Enrique Lopez has seen it only once. He called it "very rare". What was surprising to me was that our guide said "the black-headed jay is a cross between the Urraca and the Pea" (= Psilorhinus) — this being said without my having mentioned anything on the subject. In any event the remark has little value since the man has never seen the bird in question. The guide told me that only the "urraca azul" was present at San Pedro Mining - but was common. This info. doesn't agree with that given to Alvarez by Enrique Lopez. Lopez claimed brown jays were also common there.

Bonifacio, the guide, and I proceeded with 2 horses along a good trail leading up a rocky stream-bed to the northeast of San Fernando.

(25 pesos) → will get last name - Alvarez or Enrique Lopez

in Spanish, of course

some horses used on first trip to Santa Rita

San Fernando, 2500 ft., to San Pedro Muring, Chis.

Oct. 19 We climed a list, out of the San Fernando Valley and onto land which sloped gradually to the northeast, toward the Rio Grijava at Suniadero. Vegetation all along the first ~~f~~ 3 miles or so very similar to that around San Fernando, that is corn-fields, deciduous scrub forest in patches, much grass land, and a deciduous trees, shrubs, & herbs along the fence rows and the trail. Most of the land has been farmed at one time, Was surprised to note a flock of Heleodytes zonatus about ½ mi. NE of San Fernando in a dense patch of deciduous vegetation along the trail bordering a milpa. Crotophaga sulcirostris common in flocks. a marsh hawk flying over a milpa up on the hill to the east.

Trail continued along a rocky stream bed sloping very gradually downward toward the northeast. Country very similar to that along trail from San Fernando to Santa Rita. On higher slopes patches of thick evergreen forest remain but very little forest is left on any level or near-level areas. — After travelling about 8 mi. NE of San Fernando we arrived at a deserted finca house which the guide called San Pedro Muring. I was surprised to find no banana or coffee grown in the neighborhood as Enrique had described to Lopez. Instead the finca was located on a gently

San Pedro Munig, 3000 ft., Chiapas, Mexico

Oct. 19 Sloping hill in a clearing in a forest which was similar in composition to that remaining near Santa Rita. To the east of the finca and also to the west there are rather dense stands of oak trees which are covered with moss & epiphytes - heavily covered. The oak forest is not extensive in distribution, however — probably only 2 or 3 sq. miles, at most, of it in the immediate region. I could see no particular reason why some slopes are covered with this oak forest while others only a short distance away, and at the same elevation, are grown to the evergreen forest with no oaks present. Oaks are about 10 - 25 feet high - mostly rather small. Much more heavily covered with epiphytes than were the few oaks seen near Santa Rita — good solid forest of nothing but oaks. — The region around San Pedro is rather more level than that at Santa Rita - more rolling hills rather than so many steep slopes. Elevation is about the same. Just south of the finca (± 300 yds) a small stream runs ~~we~~ east and then turns north - east and then flows to the Rio Grijalva, joining the latter at a point ± 2 miles NE of the finca (this point not visited by me, however). Called the "Rio Munig" by the guide. Along this stream there are patches of tall forest with thick under-

. K. Selander,
1953

Interior of Oak forest at San Pedro Munis,
3000 ft., Chiapas, México. Photo taken Oct. 20
about ½ mi. W of camp at the finca.

San Pedro Muniz, 3000 ft., Chiapas, Mexico

Oct. 19 story of shrubby vegetation. Most of this has been cleared for milpas — and remains now occur only on steep slopes.

We dumped our gear at the Finca — a choice camp site since water & grass for horses is available — The guide and I hunted along the Muniz River working NE towards the Sumidero Gorge which we could see in the distance. Very foggy with the fog hanging near the ground. Few birds active (about 9:30 A.M). Ground very wet and muddy. We followed the river as it turned north east and ran through a small, rather flat ~~[illegible]~~ valley which was almost one solid milpa. A flock of Aratinga holochlora few over, came down to a tall tree near the stream ~~which~~ when I imitated their calls. Got one specimen. Several sparrow hawk (Falco sparverius) sitting on power-line wires near the Finca — look like migrants — took a specimen. On the east slope of the "Rio Muniz Valley" there is a thick evergreen forest which looks untouched. We climbed up into it and hacked our way through it for about 2 hours. Steep slope with many rocky cliffs — Pools of water collect at base of these are are supposed to be places where birds gather (acc. to the guide). Everything in the forest was dripping wet and the fog was thick. At long last, however, I discovered what Alvarez

San Pedro Mining, 3000 ft., Chiapas, Mexico

Oct. 19 means when he refers to the "rain forest". This was a forest - almost entirely evergreen-broad-leafed - similar in composition to that at Santa Rita but with longer trees, more vines, much more moss and epiphytes. A palm about 12-15 feet high fairly common with fronds all branching out from a base at the ground level. Many small & medium sized ferns. Many low "elephant-eared" evergreen plants. Everything ~~dripping~~ wet and dripping water. Ficus is a common tree a few reaching huge size but mostly about 8-10 feet around trunk at base. - This forest is a more humid development of the forest at Santa Rita. Everything is evergreen, however, while at Santa Rita, at least at the edge of the forest, there ~~we~~ are ~~many~~ many ~~broad~~ deciduous trees & shrubs mixed with the evergreen.

Fog prevented my collecting any birds. Heard a few songs (unidentified) but in 2 hours of hunting I didn't get a shot. The undergrowth & hanging vines make it necessary to constantly use the machete in working through this forest. Guide says birds are "abundant" in drier season or on clearer days.

Came down out of forest back to milpas in the valley along the river. A few native huts here and there but widely spaced. First birds

San Pedro Muniz, 3000 ft., Chiapas, Mexico

✓ Oct. 19 We saw were Colouttas - flock of about 5 in trees along the river. They flew to the west slope of the valley - into a deciduous patch of trees and large bushes as we approached. Got one specimen on a long shot but unable to take more as flock moved up the slope. Specimen typical C. formosa. We walked northeast along a good path following edges of milpas toward the Semidero Gorge which we could see about 2/4 miles in distance. The gorge at this point looks not nearly so deep as north of Tuxtla but I didn't investigate, Guide says it is impossible to get down to the Rio Grijalva at this point. Trail apparently continues north along the edge of the gorge to a lower point where one can cross to the "town" of Soteapa. I thought it would be good to investigate the Soteapa area but guide said it was several hour trip. He reported that region around Soteapa is "fairly flat" but is "very dry". No bananas or coffee or rain forest.

Returned to ~~car~~ finca. Just south of the finca in the mixed evergreen, deciduous forest along the river we ran into a large flock (perhaps 10 birds) of Colouttas and were able to get two more specimens.

San Pedro Munig, 3000 ft., Chiapas, Mexico

✓ Oct. 19 Fog continued to hang over the area all day. Just north of the finca there is a steep slope (couldn't see the top because of fog) covered with a forest which looks similar to that in which hunted today. Got a good idea of succession-after-clearing of the humid evergreen forest by observing edges of milpas & abandoned milpas. (Fog prevented getting pictures but other shots & have at Santa Rita, Santa Cruz, etc - will show the same deal). When the milpa is abandoned a thick stand of grass comes in; next a low, thick cover of deciduous shrubs (3-10 feet high, mostly low); next deciduous bushes of ~~saw~~ fair heighth along with deciduous trees; finally evergreen species (this last step more or less assumed). Good evidence for other stages, however.

Since I had no skinning equipment along I packed birds in plastic bag for the night. Just about 6:00 P.M. I heard calls of Calocitta in the forest near the stream. Ran to investigate and found another large flock (6 or more birds). Took 3 specimens by wounding one and allowing it to squawk. This excited other birds and they remained in the area — a good technique for getting jays. After getting these birds I heard Xanthura calling in a rather deep gully at the stream. Vegetation there was almost all evergreen & similar

San Pedro Munigo, 3000 ft., Chiapas, Mexico

√Oct. 19 to that in real "rain forest" but fewer ferns & "elephant-ears"; no palms. Got two specimens with one shot as the birds were perched on a branch above the water. Other bird of flock got away. As we returned to camp a flock of birds flew into a tall dead tree - about ~~=~~ 75 feet above the ground. Shot one - rose-breasted grosbeak. Also took a Saltator atriceps. These very common in evergreen forest throughout the area.

Returned to camp, had dinner of Spam and hit the sack. We are located near a nest of small red-ants which are really mean. Doesn't much matter since I am already one solid ant bite from the camp at Santa Rita. A few mosquitos about.

I got the following info. on trails, vegetation, etc. from the guide and from Bonifacio, mostly the former:—

① Soteapa is a small settlement located on the Rio Grijalva in a fairly level area which is ~~=~~ "seco". Calcutta only is there. (I learned later from Alvaro that a rock slide had just recently covered the trail from Soteapa to San Pedro Munigo so that it is "imposible" to get from ~~=~~ one place to the other, but I did not know this at the time, nor did the guide). No coffee or bananas at Soteapa. No brown jays.

② From Soteapa there is a trail (not for horses)

San Pedro Munig, 3000ft., Chiapas, México

V Oct. 19 directly west to a town called San Juan (see map). This trail reportedly climbes up the Monte de la Pluma through & don't believe it reaches the top. About 8 Km. from Soteapa to the main peak of the Monte. The guide said this trail was very tough and "dangerous". No water is available from Soteapa to San Juan. I gathered that most of the area through ~~with~~ which the trail passes is the dense, humid evergreen forest or rain forest. On the higher portion of the Monte de la Pluma the guide said there are "many large oaks" (= Robles) and many palms (!). The higher slope is reportedly "very humid". Soteapa to San Juan would require "2 days or more" on foot "in the dry season". The guide kept insisting that it was very difficult and very easy to get lost. He refused to attempt that particular trip in this wet weather - called it "imposible".

I can believe this about the trail. Alvaro was lost on two different occasions in that area. once with his guide - Helfego Diaz - for one day & night - and once in an area to the north west of the Monte for 3 days & 3 nights. (This confirmed by Bonifacio.)

③ I asked if there is a way up the Monte from Santa Cruz. The guide said it was "imposible" - that the Soteapa - San Juan route was the only way. This seems strange. My few observations

San Pedro Muniz, 3000 ft., Chiapas, México

Oct. 19 of the Monte de la Pluma from Santa Rita did not give me any impression of the thing being either very high or massive. However I have never seen the top because of the fog which seems to continually hang over the area — at least in this season. Have many photos of the Monte but all will show much fog. As far up as I could see from Santa Rita there is nothing but the thick evergreen forest. Perhaps the mountain is more massive farther to the north beyond the particular peak which is visible from Santa Rita — but I think not.

(Alvarez told me that Miranda knows of a still larger & higher monte near Quechula. As far as Miranda could see it is covered with the same rain forest occurring at lower elevations. It is called "Monte Solo de Dios" and you can ~~imagine~~ guess from the name that the people around there think it is impossible to climb.)

④ There is a trail (12 Km) from San Juan to San Fernando — horses I imagine, but I am not sure.

⑤ There is a trail from San Pedro Muniz to Santa Cruz (6-8 Km) - No horses. We decided on the following plan:

Bonifacio ~~would~~ to take the birds and equipment to the home of Ruben Diaz and then take horses to Santa

San Pedro Muniz, 3000 ft, Chiapas, Mexico

Oct. 19 Rita where the guide and I would join him, ~~after~~ walking from San Pedro Muniz.

Oct. 20 Left camp at 7:00 and walked eastward with the guide. Passed thru a good stand of oaks (photos) for about 20 minutes. Then quite suddenly we hit real tropical humid evergreen forest. Trees (figs, etc) of huge size, thousands of vines hanging down, dozens of "elephant-eared" plant species, many small & medium-sized ferns. The palm seen yesterday - but only in locally. In the deeper ravines - tree ferns!! - about 12 feet high (photo). Everything - but everything - is evergreen. Several plants (± 3 - 6 feet high) with banana-like leaves - A few banana trees here & there. Some coffee along the streams (small). Country is very hilly - deep ravines. For about half the distance we had no trail and the guide worked constantly with the machete. Some of the roughest going I have experienced anywhere. - Was able to get several black & white photos of various parts of this forest but fog prevented any color shots. The only clue we had as to direction was the sun (which was just barely visible for a few moments at a time through the fog). You could have taken 50 steps from the guide & been lost but good,

San Pedro to Santa Cruz, 3000 ft., Chiapas, México

✓ Oct. 20 The entire distance from San Pedro Mining to Santa Cruz was at about the same elevation — ± 3000 feet I guess — but we crossed numerous small canyons — continually up and down. Near a small stream we stopped for lunch. Heard Motmotus motmota calling from high in the trees — a low, owl-like "who-who" or "how-who". Got one specimen. Found a skeleton of Felis tigrina? near the stream & collected the complete skull. Saw two Ramphastos sulfuratus and heard their calls — just like the croaking of a giant frog. Took Sittasomus griseicapillus (2) in a clearing in forest. Saw several flocks of small birds but identified none. Other than these I saw no birds in the real thick portions of the forest. The forest ~~was~~ is more humid in certain places than others to judge from distribution and numbers of ferns, especially tree ferns. The latter were not commonly seen. In places there was some evidence of the natives attempting to clear area for coffee. After several hours we climbed a slope and there was an old barbed-wire fence! I learned that this divided "San Pedro territory" from "Santa Rita territory". Crossed fence & continued on east. We were now in the Santa Rita drainage. The humid forest gone way to deciduous trees, grass, corn, orange trees, etc.

K. Selander, 1953

Forest between San Pedro Mining and Santa Cruz.

K. Selander,
1953

44c

Interior of forest between San Pedro Mesa
and Santa Cruz.

Santa Cruz, 3000 feet., Chiapas, México

Oct. 20 as we neared Santa Cruz. I would guess that the entire Santa Rita Valley was once evergreen forest (this confirmed by what Miranda is reported to have told Alvarez) but now the forest remains only in patches — except along the steep south-facing slope of the Monte de la Pluma. Took 2 Heliodytes zonatus at Santa Cruz. Also noted a ~~Motm~~ Trogon collaris, Xanthoura yncas, Saltator atriceps, Cathartes aura, and other species recorded at Santa Rita before.

Questioned two native women at Santa Cruz concerning jays but they knew none of the birds of the area.

We headed south to Santa Rita and joined Bonifacio there at 3:00. Whole trip took just about 7 hours. Saw no Calocitta or Psilorhinus along the way. Guide says "Pea" occurs uncommonly in the Santa Cruz area & also throughout the humid "rain forest," but a "other seasons." He seems to know what he is talking about and does not seem to fake things as I suspect my other guide — Helfego — was prone to do. I am inclined to trust reliability of information from this guide, however. Green jays are fairly numerous in the edges of the evergreen forest but they seem not to be in the most humid & dense portions — may be just because of the fog,

Santa Cruz, 3000 ft., Chiapas, México

Oct. 20 West of the Monte de la Pluma there is a truncate-topped hill which the guide called "Monte de la Marimba". Took several photos of Monte de la Pluma but fog hid the summit.

At Santa Rita I learned that Bonifacio had been unable to find ice in San Fernando as I had instructed (for yesterday's birds). Since I now had 18 specimens, including 6 Calanotta & 2 Xanthoura I decided to return to Tuxtla rather than spend another night at Santa Rita. I was satisfied that the new jay was not in the "rain" forest and that we could not climb the Monte at this time. At 4:00 we started back toward San Fernando. Shot 2 more Calanotta from flock of 4 on north edge of town. - They must be very common around San Fernando.

Paid 30 pesos to Sr. Rubén Diaz for 2 horses for 2 days. Paid guide 20 pesos. Gave Bonifacio 8 + 2 for his wife for telephone to Tuxtla for a taxi. Took a few shots (color) around San Fernando (Rubens family) and then returned to Tuxtla - Was charged 35 pesos by the taxi driver for the trip. This is 10 over the usual charge !!

Up until 12:00 skinning out 19 specimens. Just skinning - not stuffing, labels, etc. Extremely tired when I finally hit the sack.

Tuxtla Gutierrez, Chiapas, México

Oct. 21 Spent day stuffing specimens (19) and writing field notes.

Summary of Information and Thinking on Black-headed Jay Problem.

1. Distribution - This jay has been seen only near Santa Rita (by Alvarez in January and by Hellego Ruiz and Ruben Ruiz) and at San Pedro Munis (by Enrique Lopez). One of the Ruiz men saw a flock of 4 several years ago "race. to Alvarez) and the other saw "2 several years ago". Hellego claims it is "common" at Santa Rita but his info. is highly untrust worthy. The localities where the bird has been seen are similar - forest (deciduous, evergreen mixture) around mil pas. Both are localities where Calocitta is present though not in such numbers as around Tuxtla and lower down to the south in the San Fernando Valley. My second guide had never seen the bird though he had heard about it from Enrique Lopez and, I presume, the Diaz men. I doubt that few if any other men in the San Fernando area know the bird. None of the children know it and I never questioned another Mexican native who I felt knew ~~what~~ the differences between the "azul" and "negra".

Tuxtla Gutierrez, Chiapas, México

Oct. 21 Alvarez's specimen was a lone birds. The Diaz reported them in small flocks but this may not have been so. Helfego had a habit of calling any jay we couldn't see an "urraca cabeza negra". My second guide says the "negra" occurs with the flocks of "azul"; but I don't know where he got this info.

Calocitta formosa is not too uncommon in the Santa Rita region, is common at San Fernando, and at San Pedro Munoz (personal observation). My guide reported it at Soteapa. Alvarez says they become rarer the farther you go toward the lowlands to the northwest of Santa Rita.

Psilorhinus is reported from Santa Rita (by Alvarez: a few flocks), San Pedro Munoz (by Enrique Lopez; but not acc. to my second guide) and at Santa Cruz (Helfego and second guide). I saw none in the mountains so it must be rare or it occurs there only at certain seasons. It is common at Quechula and in the lowlands to the north. Second guide reported it present in the rain forest between San Pedro Munoz and Santa Cruz during "drier seasons".

② No longe jays present in the "rain forest" east of the Santa Rita area — Proof: 1) My own trip through the forest, 2) my experience hunting around Santa Rita, 3) Alvarez's failure to find jays during several trips to this forest, including one for 10 days and

Tuxtla Gutierrez, Chiapas, México

Oct. 21 numerous short trips around San Fernando and Sumidero. This "rain" forest is more a less continuous from the Santa Rita area to the Sumidero plateau. If there is an endemic jay in it Alvarez would have turned up other specimens. In other words the humid evergreen forest is not limited to a local area at Santa Rita. It is very extensive and since it is similar in composition to what Miranda describes as the "Selva Alta Siempre Verde" of the northern lowlands of Chiapas it is my guess that it is continuous with the extensive lowland forests in that region. The area around Santa Rita - San Pedro is not high - only 3000 - 3500 feet (with exception of Monte de la Pluma which rises perhaps 2000 feet more — don't know altitude exactly).

According to Miranda the whole Santa Rita region was originally evergreen forest. Now about ½ the land in the valley has been cleared for farming. Much grass and deciduous trees and shrubs, and herbs have come in and ~~mixted~~ mixed with the remaining evergreen species, and vegetationally the area is not unlike that down from ~~San~~ San Fernando and around Tuxtla. Some patches of evergreen forest remain around Santa Rita and there is a good stand along the steep south face of Monte de la Pluma and an

K. Selander,
1953

Tuxtla Gutierrez, Chiapas, México

Oct. 21 extensive and almost virgin stand between San Pedro Muniz and Santa Cruz. The second guide said the forest extends for "miles" to the north (This confirmed by Alvarez.)

Little is known about the vegetation on top of Monte de la Pluma. The same evergreen forest extends up as far as I could see (± 700 feet). Alvarez reported pines on the eastern side and the guide reported pines (very large) and oaks and "palms" on the monte, presumably near the top. There are a few oaks near Santa Rita and local stands of oaks near San Pedro Muniz and more humid

In light of this information and all of my experiences I suggest the following possibilities:

— 1. The strange jay is a freak of C. formosa — this would account for its rarity but according to Dr. Pitelka it is unlikely that it is simply a freakish specimen because of the great size.

— 2. The thing is a new species which —

A) lives in much the same habitat as C. formosa — possible but improbable?

B) lives in the evergreen "rain" forest. Ruled out by Alvarez's work & mine & info from natives? I think this idea highly unlikely. and/or "palms"

C) lives in the pines on Monte de la Pluma — possible. Only info. I have is that the 2nd guide said there are no large jays on the Monte and

R. K. Selander,
1953

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 21 Alvarez saw none in his visit to the eastern side when he passed through pines there. If a population is up there high on the monte its rare occurrence at Santa Rita could be explained by individuals wandering down. Alvarez took his specimen in January.

Reasons for doubting this last possibility:
1) Guide's info. + that of Alvarez. Also the monte de la Pluma does not seem to be to be massive enough to have any great areas of high pine forest — I may be wrong and the monte may be higher and more massive to the north. In any event the only way up the monte is a 2-3 day trip on foot from Soteapa through country which very few people seem to have visited.
+ 3. The strange jay is a hybrid between Calocitta and Psilorhinus.

Evidence for:

1) Veg. + physiographic set-up is good. (I realize this alone has little meaning).

2) Presence of characters of both genera??? (Am I all-off here?).

3) Rarity and occurrence in some areas as Calocitta and Psilorhinus.

Evidence against:

1) None of the 31 specimens of Calocitta I have from Santa Rita, San Pedro, San Fernando,

R. K. Selander,
1953

Tuxtla Hutrierrez, Chiapas, Mexico

Oct. 21 and Tuxtla regions show any characters approaching Psilorhinus. Might not this be explained if the F, Calocitta x Psilorhinus is sterile?

2) Some vague evidence that the strange jay has been seen in small flocks — Perhaps this wouldn't be expected if the thing is a hybrid — or perhaps it would. In any case the info. on this point is poor. Alvarez's lone bird is the only definite observation we can trust.

I favor #3 as an explanation but #2 is still a good possibility. However, unless the jay is lisping up in the pines or palms on Monte de la Pluma I cannot see that there is a habitat for it around the Santa Rita region. The evergreen "rain" forest is very similar to that of the ~~Gt~~ gulf lowlands to the north I would judge and many of the birds of this forest — e.g. Momotus momota, Sittasomus griseicapillus, Ramphastos sulfuratus, Glyphorynchus spirurus montezuma, Harpia harpyia (Alvarez has specimen from San Pedro Mtns) and Saccoramphus papa are, I believe, birds characteristic of the humid lowland forest.

If Monte de la Pluma cannot be climbed by me at this time the next best thing to do would be to work the San Pedro Mtns region for a week, collecting all Calocittas possible in hopes of

Tuxtla Gutierrez, Chiapas, México

Oct. 21 picking up another specimen of the black-headed bird. Caloicitta is as common at San Pedro Mung as it is anywhere around here. Furthermore the locality is good for hunting the evergreen forest where Psilorhinus may turn up.

Sent telegram to Dr. Pitelka in afternoon. Gone 10 pesos to Bonifacio for an "injection" for his cold, which is pretty bad from last two days of fog.

Tuxtla Gutierrez, Chiapas, México

Oct. 22 Left Tuxtla by autobus with Bonifacio at 2:30 P.M., heading for Arriaga. Had 200 pesos when we started. Bus costs ±20 pesos for the two tickets. Country just west of Tuxtla is same as at Tuxtla. At Ocozocoautla it is more arid with fewer trees. A large tuna cactus present but sparsely distributed. Mesquite-like bushes + small trees common. Much grass along with semi-barren rock areas. Whole deal looks like some of the more barren parts of New Mexico. It looks like fair habitat for C. brunneicapillus but apparently the species is not present. At Cintalapa the road turns south a climbs very gradually. Pines come in just before the summit of the Sierra Madre — a few scattered over otherwise barren hills. At the summit and just before there are many large oaks. The road descends in a series of sharp turns through, I believe, oak forest (it was just after sunset when we reached the summit and started down. It looks dry on the southern slope — not humid as I expected. Saw no more of the country because of darkness. Stayed the night in the Hotel Pan Americana in Arriaga. 16 pesos + 8 for 2 cenas. Went to the line.

Oct 23 Left Arriaga at 6:30 A.M. in a libre heading for Tonala — 50 pesos. Road very bad with

Tonalá, 500 ft., Chiapas, México

Oct. 23 numerous streams to ford. A new road is now in construction between Arriaga and Tonalá which should be finished in the not too distant future. Most of the road is finished but bridges are not finished.

We are staying at the Hotel Gonzalez just north of the railroad tracks. The plaza is some distance to the north. Room for 2 is 10 pesos/day. Meals 2 pesos each. Not such a hot place, however, but as good or better than anything in town. I learned that there is no road to Mojarras from here - only the train. Apparently we can get the train at 4:30 A.M. and go to Mojarras - catching the train back at 6:00 P.M. Have been warned of "bad hombres" in the Mojarras area and even around Tonalá. Don't know what the situation is. Said to be little malaria here by the natives.

Went hunting south of town more or less following the river (= Rio Santo Domingo on the map) which is perhaps 25 yards wide at its best. Vegetation south of ~~Tuxtla~~ Tonalá is mostly dry, rather similar to that at Acapulco - Pie de la Cuesta limit, of course, no coconut palms or mangroves - Much meadow area with many semi-marshy areas. The bull's-horn acacia seems not to be common. Many species of Convolvulus? growing on the bushes and in the trees

Tonalá, 500 ft., Chiapas, México

Oct. 24 and in full bloom but no meloids noted. Lizards abundant and several snakes seen.

Numerous trails leading here and there south of the town. Many cows in the numerous pastures.

Airline map gives 180 ft. for Tonalá which Goldman gives 500 ft. - Must find what the true altitude is. [= 180 feet is about right].

Noted following birds south of town: * = specimen(s)

Cormorant, presumably P. olivaceus - on near river.

Butorides virescens 2 near pools of stagnant water near river.

Casmerodius albus? - 3 in river

Mycteria americana - several in river with heron.

Falco sparverius - several seen between Arriaga and Tonalá this morning.

Scardafella inca - common everywhere.

Columba (flavirostris?) - common

Trogon sp - one

Motmotus mexicanus - few

Muscivora forficata - fairly common. 50 or so seen in several flocks near Arriaga.

Pitangus sulphuratus - common

* Coloutta formosa - common.

* [ampylorhynchus chiapensis - 2

* Turdus grayi (common - specimen not saved).

Polioptila sp - few

Cassidix mexicanus - thousand or so flocking into trees near hotel at dusk.

Tonalá, Chiapas, México

Oct. 23 Several vireos
Yellow worbler - not sure.
Icterus gularis - common
Crotophaga sulcirostris - common
*Icteria virens

Took letter of introduction from Alvarez to the Presidente of Tonalá in the "Palace". He is to arrange for a boy to act as our guide and will give us a letter for the head man at Mojarras when we head down that way.

Skinned 7 birds in afternoon. Feeling a little sick - muscles in arms ache. Extremely hot here. Lights are turned off at 9:00 I understand but a kerosene lamp is available in the room. Bought a roll of cotton for 3+ pesos. No "wata" = cheap sheet cotton - seems to be available here. There is a place near the hotel which sells "agua pura" - will try a jug. Several "libres" about town but only one or two any good. Had a look at the Hotel Central near the Plaza - which is said to be the best in town - but it looks no better than the one in which we are staying.

C. Selander, 1953

Rio Sanatenco at eastern edge of Tonalá at point where the Tonalá - Puerto Arista road crosses. View looking north.

Looking north from a point just west of Tonalá.

K. Selander,
1953

Tonalá, Chiapas, México

Oct. ~~25~~ 24 Met the Presidente at about 7:30 in the Plaza. He assigned a guide – a near-idiot whose name I didn't get. He claimed to know the Chancuacas and said they were "common" arriba so we climbed up into the foothills through corn-fields to the edge of a deciduous forest not unlike that around Tuxtla. No wrens seen or heard and no nests seen. Up on the hill the stupid guide said they were "rare" here. We followed down the streambed of the "Rio Seco" for a long distance and then followed the Rio Santo Domingo south along the edge of ~~Tuxtla~~ Tonalá. From the foothills I could see the ocean to the south-hand looks perfectly level from Tonalá to the ocean – I would put the elevation of the town at 180 ft.. as on the air map – not 500 feet as given by Goldman. — We found very little bull-horn acacia along the Rio Seco – which is only 10-15 feet wide with very little water. Along the Rio Santo Domingo there is more acacia. Took a Pteroglossus torquatus from a large tree near the Rio Seco just north of the town. Saw another there. Many Cassiculus melanisteus, groove-billed ani, hummingbirds, Calocetta – few heard, Icterus gularis, warblers, small flycatchers. Took a green iguana and another lizard. The iguana was shot from a tree above a pond of stagnant water.

R.K. Selander, 1953

Tonalá, 180 ft., Chiapas, México

Oct. 24 From the hills I saw a narrow body of water to the south-east of Tuxtla where a spur of the mountain projects ocean ward more than usual. Guide called it "Mojarras Laguna". Perhaps it is connected with the ocean and forms the boundary between humilis and nigricaudatus. Took 2 H. chiapensis from a flock of 4-5 birds in a situation almost identical with that of yesterday — i.e. standing stagnant water, thick tree-bushes. The birds seemed not so restricted to one particular locality this time. Moved some distance away after I shot the two. The wrens were part of what appeared to be a loose flock of several species of birds, including Icterus gularis and Becard (#1652). I watched one bird feeding — climbing up the branches of a small tree like humilis does. Much slower ~~and~~ than H. zonatus — not so active.

Many of the natives seemed to know the wrens and claimed they are common. One guy stressed the idea that they were more common or at least more noticeable early in the morning or late in the afternoon this is probably true. In any event I am having a tough time finding these birds and have yet to find humilis. I doubt that either occurs even in the foot hills, let alone the higher parts of the mountain but this need more investigation

Tonalá, 180 ft., Chiapas, México

Oct. 24 Rain with a little thunder around 2 P.M. At 4:30 we went to the Plaza, met the Presidente and drove around the town in his Willys Pick-up Truck. Sky clear - only a few clouds. The Presidente owns three Ranchos around Tuxtla. We visited one, about 30 head of cattle, a few banana trees and several coconut palms. A small river runs through his land near the casa. Noted four Pteroglossus torquatus in large trees near the casa of his ranch. Thousands of Cassidix mexicanus flocking in trees south of town. We drove along the road to the south-east of town which leads to Puerto Arista - but am told by the Presidente and a taxi-driver that it is for horses only in this season. About 15 Km. to Puerto Arista from Tonalá according to the Presidente. No road from Tonalá to Mojarras. Looked about a large map of the Tonalá region and the Presidente promised to show one to me in the near future. I also asked about the Laguna Mojarras. Apparently on reaching the Laguna the train turns in toward the mountains and skirts the edge of it. This Laguna may be the key barrier for humilis and nigricaudatus - will have to investigate carefully both sides and also the mountain edge since there may be a connection

Tonalá, 180 ft., Chiapas, México

Oct. 24 between the two populations there. It is very important that I determine how far up in the foothills these birds range so I can determine how effective is the ~~barrier~~ Laguna Mojarras as a barrier for humilis and nigricaudatus. So far I have taken only chiapensis around ~~Tuxtla~~ Tonalá. Brodkorb claims humilis is also common — but is humilis more frequent in drier situations more xeric. I have taken chiapensis in moist habitat with standing pools of water beneath trees and bushes.

We are going out south of Tonalá with our guide — who is a member of the police force of Tonalá. The Presidente seems interested in me & my work. He is making a good try at impressing me with his forms, car, etc. and I am eating it up for sake of public relations. Apparently no one in Tonalá ~~speaks~~ speaks any English. The Presidente knew 4-5 words but his Spanish is good and slow.

~~Oct. 25~~ Bought formalin for reptiles + 2 bottles — 2 pesos for formalin, 6 for the two bottles. Sent telegram to Alvarez giving my address. Sent Bonifacio to buy a large jug of "agua pura" which will be great for me since I haven't had a drink of water in days. Bought alcohol + cotton for birds.

R. K. Selander,
1953

Tonalá, 180 ft., Chiapas, México

Oct. 25 Hunted from 6 - 11 A.M. south east of the town. At about 6:30 I took a H. chiapensis in a situation similar to that in which I have found these birds during the last few days. Birds very active in early morning. Unbelievable numbers of parrots, grackles, doves, and herons all over southeast of town. Noted the following species:

Phalacrocorax sp. - undoubtedly olivaceus - about 15 in the vines.

Mycteria americana - 5-10

Egretta thula = Leucophoyx thula - 20+ in river. Had a good look at the yellow feet.

Casmerodius albus - 5-10

Buteo magnirostris - common: specimen.

Hyfaomorphnus urubitinga - several.

Falco sparverius - several.

Charadrius vociferus - 3 or more along river

Zenaida asiatica - abundant

Scardafella inca - "

Aratinga canicularis - abundant

Piaya cayana - common

Crotophaga sulcirostris - abundant

Ceryle torquata - 2 on river.

Motmotus mexicanus - fairly common. - specimen

Centurus sp. ?

Muscivora forficata - few in a flock.

Pitangus sulphuratus - abundant

R.K. Selander,
1953

SE side of Tonalá, 180 ft., Chiapas, México

Oct. 25 Becard - specimen yesterday. - Common.
Calocitta formosa - few - one flock of 3.
Heleodytes chiapensis
Polioptila sp. - few
Dendroica petechia - 1 shot but not prepared.
Setaria ruiceps - fairly common; specimen.
Cassiculus melanicterus - common.
Cassidix mexicanus - extremely abundant in town and on edges of town with cattle.
Icterus gularis - common
Chondestes grammacus - 2 seen - one of which was shot but not prepared.

Rain in afternoon but clear by about 5:00 P.M. Went to see the Presidente at about 5:30 P.M. but he wasn't in. Looked for him at his office above the jail but he wasn't there. A soldier said he will be in at 10:00 A.M. tomorrow and that the policeman who acted as our guide would be in at 9:00 A.M. tomorrow.

Got some info. on train schedules between here and Mojarras. One train - probably the "crack express" doesn't stop at Mojarras or any other towns between. There is however, a train which has the following daily schedule - & have been warned that it is uncertain as to time this train leaves the various stops - i.e. it is highly irregular.

R. K. Selander,
1953

Tonalá, 180 ft., Chiapas, México

Oct. 25

Schedule of train - Tonalá - Mojarras:

Going		Coming	
A.M. 7:10	Tonalá	17:30	P.M.
7:20	Quetzalapa	17:20	
7:27	Esmeralda	17:13	
7:40	La Palka	17:00	
B	Cabaña	B	= no stop?
7:55	Amates	16:45	
8:09	Mojarras	16:32	

It will be important to catch the train back from Mojarras (and other points) as there are no hotels in Mojarras or any other of these places. Better play it really safe the first time and arrive back at the station an hour or more before the train is scheduled to leave for Tonalá.

Feeling sort of sick today - muscles ache in a strange way - may be my cold.

Asked a boy to have 2 horses at the Hotel tomorrow for a trip to Puerto Arista to look the country over. Will delay work at Mojarras until I see the Presidente and get a guide from him.

Saw a lizard today which had a body more than a foot long! It jumped from a small tree and rushed into the grass before I could get a shot.

Tonala to 6 mi. S Tonalá, 180 ft., Chis., México

Oct. 26 Rented two horses (10 pesos each per day) and rode out along road toward Puerto Arista. Road probably OK for truck in dry season but not now. At a point about 3 miles S Tonala we began finding numerous H. chiapensis. Took 19 specimens and then returned to Tonalá, arriving at about 1:00 P.M. Picked up letter from Pitelka containing 4 $25 checks. Put birds on ice, skinned until 8:30 and then went to bed. —+

Oct. 27 Skinning birds most of the day. Presidente of Tonalá promised a letter of introduction to the Presidente of Mojarras. Plan to collect at Mojarras tomorrow. Boy brought another C. chiapensis he got here in town.

Oct. 28 [Bonifacio's address in Tuxtla Gutiérrez =
No. 83 Primera Poniente]

Bonifacio just checked on train to Mojarras today. Someone told him it leaves Tonalá at ~~1:00~~ 12:00 ~~P~~ M. — This doesn't agree with the schedule I got from the printed time-table a few days ago.

The Presidente of Tonalá gave me a letter of introduction and recommendation to the Agentes Municipales around Tonalá. I copied a map of the Tonalá - Mojarras region which the Presidente had stored away in a cabinet — apparently an old map — blue-print type. The Presidente's name is Lic. Juan Trinidad López.

L. K. Salamander,
1953

3 mi. S of Tonalá on road to Puerto Arista.
L. chiapensis common in vegetation on either
side.

R. K. Selander,
1953

Nesting situations of L. chiapensis, 5 mi. SW Tonalá. Above: nests in bulbó horn acacia tree. Below: Nest placed at end of branch of a bush-like tree, overhoning a small ditch. Only one nest found in this tree.

R.K. Selander,
1953

C. chiapensis:
One group near huge dead tree, another 75 yds away in same field & another just across the road.

Along road between Tonalá and Puerto Arista, 5 mi. SW Tonalá, 100 ft.. Photos taken Oct. 31, 1953. Several family groups of C. chiapensis at this locality.

La Polka, 25 ft., Chiapas, México

Oct. 28 Took train at 12:30 headed for Mojarras but decided to hunt around La Polka instead. La Polka is located at the NE edge of the Laguna de la Joya and is a settlement of huts. No electricity. Huts located about ¼ mile from the edge of the laguna. To the north east of the huts about ½ mile there is a rather low hill which is covered with a dense, low deciduous forest. Land between this hill and the laguna — ¾ mile has largely been cleared for milpas. Around the water's edge there is a thick stand of low, dry trees having very small trunks — 6-9 inches circumference. Some low bushy hedgerows surround the milpas and much small mesquite-like scrub less than 10 feet high in pasture near the hill. The land is much drier than that around Tonalá. Everything is deciduous except for a few bushes similar in appearance to small coffee plants or bushes. The laguna is mostly filled with mangroves but there is a little clear water around the edge. I judge that the original vegetation on the plane at La Polka was similar to that remaining on the hill — probably the Selvas Bajas Deciduous of Miranda. In any event the large trees seen at Tonalá and south of Tonalá are not present. We did not investigate north east of the hill. From the edge of the hill I got a good view south towards Cahaña and Mojarras. The main chain of the

La Polka, 25 ft, Chiapas, Mexico

Oct. 28 mountains is farther inland and runs in pretty much a straight line SE. However, more seaward there are a series of these dry, small hills which seem to surround the laguna. (See map). Took two specimens of nigricaudatus. Returned on train at 7:00 P.M. arriving at Tonalá around 7:45. ~~Her~~ Calocitta formosa in a flock of 15 or more birds in corn field. Took one specimen. Icterus gularis common. Fregata magnificens flying over the hills and the laguna. Many Aratinga. Laughing one falcon seen. Caracara (cheriway) - pair seen. Cassidix mexicanus and ~~C Sulcirostris~~ Crotophaga sulcirostris common. Many herons and ducks in the laguna. Saw one spoonbill and several brown pelicans.

Land south to about Esmeralda is the same as at Tonalá. Savanna with large trees and thick hedgerows of bushes, vines and smaller trees. Nearing the laguna the forest trees are smaller in height and much drier in appearance. Bull-horn acacia was fairly common around La Polka but was smaller - both thorns and leaves - and may be another species than that around Tonalá.

Several natives at La Polka said it is possible to drive by car from Tonalá to La Polka and beyond in dry months - March - May. The road is not shown on the map I have, however.

La Polka, 25 ft., Chiapas, México

Oct. 28 Many people claimed that the "chancuaca" was "common" around La Polka. Our guide said it did not occur in the "monte": the hill near the settlement. Most people stressed that it was most numerous "temprano" around the casas. The guide showed us several spots along the ~~by~~ laguna, at the edge of the hill, and in the milpas where he claimed to have seen wrens commonly. We found only 2 flocks, both in a patches of bushes in a milpa near the railroad track near the guides hut. The Rio which flows into the laguna NW of La Polka was called the Rio de la Polka — we did not see it from the train nor did we investigate. Talked with two men from a rancho said to be about ½ hour on foot E of La Polka (beyond the hill) and near La Barita. Both men said wrens were abundant at the rancho. Many of the natives in La Polka know the wren a "chupa huevo". Another name is "chacuaca". One man said these birds sometimes are caught in traps. I offered him 4 pesos/each for living wrens he could get for me and he promised to have some tomorrow. Said he would meet the train at 6 or 7 P.M. when it passed through La Polka. While returning to Tonalá on the train I talked with a man & his family from Chiapa, Chis. They seemed familiar with the Tonalá-

La Polka, 25 mi., Chiapas, México

Oct. 28 Mojarras region and claimed the "chamuaca" was "bastante" around Mojarras and at some place way down the coast. He also claimed to have seen them near Chiapa — but this may be Heleodytes zonatus.

(It will be necessary to collect specimens of the vegetation before returning to Tuxtla. Miranda's book is of no value in identifying the vegetation. The photographs are so poor that I can't use the book at all.)

It will be important to hunt in the mountains NE of La Polka and east of Tonalá. Also we must hunt along the road from Tonalá to La Garita since wrens probably occur there. There may be a valley between the hill NE of La Polka and the main mountain mass.

yes — the Grijalva Valley.

None of the natives at La Polka knew the giant wren (chiapensis) so I guess it does not occur there. It may occur at Esmeralda where the vegetation looks OK. for it.

Elevation at La Polka is probably very close to sea-level.

Tomorrow we are going to Mojarras where I hope to get a good series of nigricaudatus and study their habitat.

Tonalá, 180 ft., Chiapas, México

Oct. 29 Paid 15 pesos for skin and skeleton of a Nasua nasica which has been here at the hotel as a house pet since we arrived. See Catalog # 1690 for details.

Took train to Mojarras, attempting to map the hills and vegetation on the way. At Mojarras we found no wrens. The place is right on the edge of the laguna — a series of shacks scattered along the water's edge and along the railroad tracks. A hill NE of town is covered with short, dry looking trees; — also some short palms. A few coconut palms and banana trees in the "town". Very poor for hunting — very little area between the hill and the laguna — ± 1/8 mile. The Agente Municipal said wrens were uncommon but were there in April-May — just around the huts. He seemed to know the bird and its nest. He said there were none in the "monte" but another guy claimed they were common in the "monte". The bird undoubtedly is present around Mojarras — at least in another season but even so I cannot see how it ever could be common as Brodkorb reports. The whole narrow plane around the laguna from La Polka to Mojarras is probably marginal habitat for the birds. Perhaps better hunting NE of the dry "monte" which borders the laguna. The Agente Municipal claimed wrens are abundant at a rancho across the laguna (= in the vicinity of La Barra),

K. Selander, 1953

Looking NW

Looking NE

Looking SW over Laguna

Looking NE

Several views at Mojarras, Chiapas.

7/a

R. K. Selander,
1953

Mojarras, 25 ft., Chiapas, México

Oct. 29 but we didn't have time to make the trip. That place can be reached by car from Puerto Arista - in the dry season.

There is a chain of hills surrounding the Laguna de la Joya - these hills are covered with a dense low deciduous forest and seem to be not connected with the main Sierra Madre. From La Palka to Cabaña the plane is ½ - 1 mile wide but from Cabaña to Mojarras it narrows rapidly and is only ¼ mile or less wide at Mojarras. Many Cassiculus melanicterus, Cassidix mexicanus, social flycatcher, hooded (same as at Tonalá, I think), Crotophaga, black vulture, blue grosbeak around Mojarras. Noted several Fregata magnificens and many ducks - also a spoonbill. Many cormorants, herons.

A small river (5-8 feet wide very shallow) flows from the "monte" to the laguna near Mojarras. Along the stream the trees are larger and the vegetation lush - but elsewhere things are fairly dry. Boy told us that there are no woods a paths into the monte and I saw none - but doubtless there is some sort of trail since another boy mentioned having been up in the hills. He offered to collect wrens and bring them to Tonalá. I ~~agreed~~ arranged to pay him for any he might get but doubt that anything will come of it. ——

Mojarras, 25 ft., Chiapas, Mexico

Oct. 29 Took 3 photos — one looking NW from Mojarras along edge of the laguna; another looking SW over the laguna, and a third looking NE at the "monte" from near the railroad tracks.

It will be important to investigate the area between the Sierra Madre and the ring of hills bordering the laguna. If wrens do not occur there this laguna is probably a good barrier because very little area of habitat is available along the narrow plane around the edge of the laguna. However, if wrens occur at La Barra they may range all along the beach area to Puerto Arista which would form an avenue of connection between *humilis* and *nigricaudatus*.

Oct. 30 Rode out on horse early in the morning to the Rio Agua Dulce along the road to El Carmen and Ocuilapa. Country is drier than south of SW of Tonala and is very similar to La Palka. Only wrens seen were a small flock (4 birds?) of *chiapensis* 2 miles SSE of Tonalá. They were in a thicket of low bushes and thick, tall grass along a fence along the road. Took one specimen. About 25 or 30 yards away in the same field I found a pair of small wrens. They were in an acacia like tree - not bull's horn although that was common in the area —. One bird was hammering the branch with its bill. Unable to get a specimen but the extent of red-brown of the

= 2.6 miles SE

2 mi. SSE Tonalá, 180 ft., Chiapas, México

Oct. 30 both of one individual I saw which make me feel that these birds were nigricaudatus. We talked with several natives — all of which claimed "chanecuacas" were "bastante" around the Rio Agua Dulce and around the casas scattered between Tonalá and the river. I hunted some along the river but found no wrens. We returned to Tonalá at 12:00.

The apparent absence of wrens today is hard to explain. Possibly hunting would be better very early in the morning when the birds are more active. Towards 11:00 most birds here become inactive and silent — the flycatchers and doves excepted. Also there may be some seasonal movement from this region. All natives seem to know the wrens and claim they are common — the same experience we had at La Palma. Chiapensis is probably much less common SSE of town than along the road to Puerto Arista. The habitat is slightly different — drier for the most part; fewer large trees and not the good thick development of hedgerows we saw on the road to Puerto Arista. I took a photo at a point about 1 3/4 mi. SSE Tonalá, looking towards the mountains.

I can see no reason why nigricaudatus should not occur here ~~if it is a~~ since the vegetation is similar and probably continuous from the region of El Carmen to La Palma as far as I can see. A Mexican drove by towards Tonalá in a jeep so I

2 mi. SSE Tonalá, Chiapas, México

Oct. 30 think it would be possible to bring a truck in in the dry season. The only really bad place would be the Río Sonatenco near Tonalá but this may be pretty low in the spring. The Río Agua Dulce is small - 15 feet or so wide - but 8 inches or more deep. There is a good stand of trees along this river but elsewhere large trees are scattered and most are small. A few very large trees I think are guanacaste (Enterolobium), but not sure. The Muscivora forficata was abundant all along the road from Tonalá. Many Psitacuns sulphuratus very abundant, large swifts flying over the fields, Todirostrum cinereum common. A flock of three Calocitta formosa in a dead tree near the Río Agua Dulce - collected one. Arimophila ruficauda fairly common in the dry hedgerow rows along the road; took a specimen near the Río Agua Dulce. Turkey and black vultures common, along with many Crotophaga. Piaya cayana - several; an unidentified trogon noted near the Río Agua Dulce. Scardafella abundant. Noted Petenia splendida and the common lizard (same species as seen previously).

Tomorrow we will try to get to Puerto Arista and locate humilis. My work at La Palma and today at the Río Agua Dulce convinced me that the laguna is not a barrier between nigricandatus and humilis. The two probably meet just south of Tonalá; if Brodkorb was correct about humilis being present at

Tonalá, Chiapas, México

Oct. 30 at Tonalá. Very important now to locate humilis. If we can't locate humilis or more nigricandatus in the next few days I will collect 75 or so chiapensis south of Tonalá and then pull out & here for Tuxtla because it is a waste of time here picking up a specimen or so every other day. Maybe the birds will be easier to locate during their breeding season.

No - this is incorrect See 1954 notes

The road from Tonalá to El Carmen and other points does not run between the main mass of the Sierras and the dry hills as I hoped. Rather it takes a route about parallel with the railroad tracks and this side of the dry hills.

Oct. 31 all day trip on horse to Cabeza del Toro and Puerto Arista. Chiapensis occur to within a mile or so of Puerto Arista - where there is a rather sudden change from Savanna to a low, dense, scrubby vegetation bordering the water. ~~of trouble~~ A good beach at Puerto Arista similar to that at Acapulco. Many tourists in March according to a man at Puerto Arista. No one in Puerto Arista knew of any wrens in the vicinity. They were familiar with chiapensis, however, and indicated that it occurred more inland. No sign of humilis. I am puzzled as to how Brodkorb could find it "abundant" around Tonalá. What season was he here? Certainly my experience shows it isn't

Puerto Arista, Chiapas, México

Oct. 31 here at this season. Land from Tonalá to within a mile or so of Puerto Arista is pretty uniform — savanna with large trees and thick hedgerows.

~~Oct~~ Nov. 1 - Skinning birds all day. ~~[illegible]~~

Nov. 2 Hunted an hour around Tonalá and got two chiapensis and 2 Calcitta formosa. Spent rest of day getting ready to leave Tonalá by train tomorrow. Noted spotted sandpiper along the river. Paid 346 pesos for room and board since the 23rd. Gave Bonifacio 25 pesos for new pair of shoes.

Nov. 3 Tonalá to Tuxtla Gutierrez - By train from Tonalá to Arriaga; by autobus from Arriaga to Tuxtla Gutierrez.

Nov. 4 Bought food for 5 days and drove to San Fernando with Bonifacio. Decided to stay with Sr. Ruben Diaz rather than pitch tent because of the weather. Clouds hanging just above the town - rather cold. Hunted on horse for several hours in the afternoon but birds very inactive. No sign of Calcitta. Talked with my guides of previous trips and with several other people but none had anything new on the "arraca cabeza negra".

Nov. 5 Rain during the night and all through the morning. In early afternoon it stopped raining

San Fernando, Chiapas, México

Nov. 5 and we hunted up the road toward Santa Rita, but without getting a bird. Trail muddy from the rain. Clouds hanging low over the hills in every direction. Decided to return to Tuxtla and left San Fernando by taxi late in the afternoon. Gave Bonifacio remaining food as a tip for his help during last 5 weeks. Left with Alvaro - ammunition, shotgun, suitcase, most of my field cloth, mosquito net, large supply of cotton, and various odds and ends. Made reservation on 8:30 A.M. plane for México City tomorrow.

Nov. 6 Tuxtla Gutierrez to México City. Stayed at Hotel Regis (25 pesos).

Nov. 7 México City to Tijuana - Los Angeles - San Francisco, arriving home at 11:00 P.M.

Species Accounts

K. Selander, 1953

Caloaltta formosa

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 2 I gleaned the following from Alvarez today:

1. Caloaltta is "abundant" all around Tuxtla - especially at the edges of town. Best place to collect is east of town about 5 km. only the "urraca cabeza azul" occurs at Tuxtla. He has one specimen in his collection at home and 2 mounted at the Museo (all typical C. formosa).

2. Caloaltta is a bird of the lowlands, occurring at Arriaga and Tonalá (Alvarez observed them there several years ago). The most northern point he has seen them is at Villa Allende. He said he was surprised to find them at Villa Allende "because it is too high for them there" Caloaltta is "rare" at Villa Allende. (Villa Allende is, acc. to him, the same as San Fernando on the Amer. Geog. Soc. Map. Santa Rita is a ranch near there. If it is 3000 ft. high it is about 1200 (2500 ft) feet higher than Tuxtla. Alvarez took the "urraca cabeza negra" in January. Only one seen by him. Said he knew it was "different" by the way it flew (nothing specific on this point)" and because it was more "robust" Nothing known about possible differences in voice between this & C. formosa. Psilorhinus is present at Villa Allende (apparently uncommon) "a few flocks" but is more common along the Rio Chiapa to the NW of there. It is said to become

K. Selander, 1953

Caloaltta formosa

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 2 increasingly common as you go NW from Villa Allende (and also down in elevation). Villa Allende is most southern point that Almoney has seen Psilorhinus. According to him it is a bird of the wet lowlands. Caloaltta said not to be present north of Villa Allende.

Almoney talked to two persons in Villa Allende who have seen the strange jay. One saw a flock of 4 "several years ago" and the other one saw two "several years ago". It is Almoney's impression that the jay appears only in certain years — rather than being constantly present. He has a theory that it may live in the gorge of the Rio Chiapa (~~Sumidero~~ gorge is called "Sumidero") which is a steep walled canyon north of Tuxtla. He says that no one has ever been down in the canyon since the walls are perfectly vertical and there are rapids and falls there. I can well believe this from what I have seen of the area both from the plane coming into Tuxtla and from my experience along the Rio Tuxtla NE of Tuxtla — where even there the walls of the gorge drop vertically for 100 feet or more in some places. It is his idea that small bands of individuals wander up from the canyon in certain years.

One of the men from Villa Allende who has seen the "urraca c. negra" is coming down to Tuxtla to deliver

Caloaltta formosa

Tuxtla Gutierrez, Chiapas, Mexico

Oct. 2 some bananas in the "next day or so", so Alvarez will question him about our going up there to hunt. He is said to be "an honest man" and a good guide. There are no hotels and Villa Allende so we will have to sleep in a hut on one of the "ranches"; only native food available. Horses available for rent. Can reach Villa Allende by bus from Tuxtla (twice daily). From there it is 1 hour's horseback-ride to Santa Rita — a ranch where Alvarez shot the specimen of the black-headed jay. Said to be very hilly near Villa Allende with heavy growth of trees — much wetter than at Tuxtla. —— Alvarez said he was also "surprised" to find Psilorhinus at Villa Allende "because it is so high."

Alvarez has single sets of eggs of Caloaltta, Xanthoura, and Psilorhinus in his home collection. Caloaltta and Psilorhinus have light brown eggs which are spotted with darker brown — are rather similar in appearance. (will get color photo).

Oct. 4 Alvarez has black-white photos of nests & eggs of Xanthoura and Caloaltta — am having enlarged copies made.

R.K. Selander, 1953

Calocitta formosa

Oct. 2-3 Zapotal ~~1~~850 ft., and, Tuxtla Gutiérrez, Chiapas.
3 mi. ENE

On Oct. 3 took 5 specimens at Zapotal and saw many other individuals. They occur in pairs or in groups of 4-5 (=family groups?). Seem to be generally distributed over the area from the edge of town up the hill — but apparently less common in the wetter, thicker portions of the forest. They are rather wary and will not come well to imitations of the calls or to owl-calls. The most frequently heard call is a throaty low — "ʾurrr, ʾurrr, ʾurr" — sounding just about like the first part of their Mexican name — "urraca" (with a definite rolling sound to the "r"). There flight is slow and rather labored, not unlike that of Psilorhinus (which I saw in Vera Cruz) but less loose. When one of a flock is shot the others scatter and are silent. Most frequently seen perched in tops of larger trees — never near the ground.

On Oct. 4 - I took 3 specimens near the Rio Sabinal, 3 mi. ENE Tuxtla at about 1800 ft., Similar situations as at Zapotal are frequented by Calocitta. Especially common near the gorge of the Rio, less so on the drier slopes where the mesquite-like tree is dominant. Have color photo of tree in which I collected one specimen.

Caloaltla formosa

near Tuxtla Gutierrez, Chiapas, Mexico

Oct. 2-3 Have taken both adults and juveniles. Both have a little fat along the feather tracts. One in last stages of fall molt. Adults with last few primaries (outer ones) ensheathed and with ensheathed feathers at ends of some feather tracts. Generally good plumage, however. Testes of adult males running about 4 mm long (or less). Ovaries of adult males are very small, with one minute. The iris of adults is a dull brown – but the entire eyeball has a bluish cast so as to almost obscure the brown. Iris of juveniles is brown with a bluish edge on the outside again whole eyeball has blue cast. Ovaries of juveniles very small with one not visible. "Palm" of all birds is yellow or yellow-orange. Feet and legs black; bill black. Juveniles have skull ossified except for 2 patches (about 10 x 6 mm) on top of skull just behind orbits. Great weight variation noted.

Oct. 6 Ran onto a flock of 10 or more in an "orchard-like" patch of trees in the deciduous forest 3 mi. N/NE Tuxtla, 1900 ft. Both adults and young present. When disturbed these jays give a loud "caw, caw, caw" – ~~very~~ almost crow-like. The "urr-urr-urr" call is not given when the birds are disturbed. In addition to these two sounds, they make a variety of other noises, most of them

Calocitta formosa

Oct. 6 3 mi. NNE Tuxtla Gutierrez, 1900 ft., Chiapas, México

with a throaty quality and rather low in pitch — a variety of notes that are difficult to put down symbolically.

In general, the jays are wild and will not usually come to investigate and calls or imitations of their notes. Occasionally one will fly in to me, however. They move quickly away through the tops of the larger trees when they are disturbed and do not remain in the area after I have fired my shotgun. Alvaro was surprised to hear that I was finding them to be wild. He has found them very easy to approach. The fact that they are molting and have just finished the breeding season may have something to do with their wildness.

Have now seen these jays in flocks of from 2 to 10 individuals, 4 or 5 being the most frequent number per group. They definitely prefer semi-open situations in the deciduous forest, especially where the large trees are so spaced as to form an "orchard." They almost invariably perch on the higher branches of the larger trees, never frequenting the ground or scrub vegetation. Their behavior reminds me a bit of that of the Amer. Magpie (Pica) but their flight is faster and not so "loose" and

Calocitta formosa

3 mi. NNE Tuxtla Gutierrez, 1900 ft., Chiapas, Mex.

Oct. 6 they are not so shy as that bird.

Specimens have a little fat along the major feather tracts. Some specimens had seeds in the mouth and stomach (will collect these later). All birds are heavily infested with a very small, whitish mallophagan. Several had round worms in the eyeball socket (have specimens). All birds are molting.

When approaching a bird for a landing these jays have the habit of swooping up to it just before landing. The tail is spread when they are landing — and they are very conspicuous because of the white in the tail. Even when alarmed the wing beat is slow — very much like Pica — but a bit faster. Flight is straight (not undulating). When alarmed they climb or fly to the highest part of the tree (and often make good targets).

They are most active and noisy in mid-morning, becoming somewhat quieter by 12 noon (at least to judge from number of flocks encountered at these times). It is difficult to obtain large numbers of these birds as they are in rather widely scattered flocks around the hillsides.

Calocitta

Santa Rita, 3000 ft., Chiapas, Mexico

Oct. 10 Hunted 2½ hours around camp in late afternoon. No jays present.

Oct. 11 about 4 P.M. encountered a flock of 5-10 Calocitta in thick forest below camp. The birds were excited and called loudly — a ringing "chew, chew." Unable to get a shot as birds were moving rapidly through the trees. Didn't hear the "urrr, urrr" call. Not close enough to tell if any were black-headed. As I recall from my experiences in Vera Cruz with Psilorhinus, the call of that bird ~~is a little like the~~ one heard today?

Oct. 12 at 8:00 A.M. a flock of jays were calling from edge of forest below camp — same call as yesterday — a loud, ringing "chew or "phew — phew" — descending in pitch. "chew" or "phew". ~~I made~~ an amazingly long shot with 6 shot, ~~dusting~~, killing one jay — which is typical of C. formosa. Other birds scattered after I fired. — No jays heard all day long while hunting at Santa Cruz, 5 miles to west of camp. at about 4:30 P.M. heard several jays calling — in various directions. Same ringing call. On the way to camp from Santa Cruz at about 6 P.M. we ~~turned~~ rounded a bend in the trail and surprised a Calocitta which was

Calocitta

Santa Rita, Chiapas, México

Oct. 12 perched in a dead tree about 10 feet above the ground. Gem was in case on the horse. I believe it was a normal C. formosa but Sr. Helfego claims it was black-headed.

Jays are not present around Santa Rita or Santa Cruz in during most of the day. They appear only early in the morning & late in the afternoon. All natives we have talked with confirm this observation. Natives claim they are in the "mountains" during the day and pass through Santa Rita & Santa Cruz on their way to and from the higher ground. Although there is a definite movement each day, I am not sure which direction the jays move in the morning — may be going down rather than up — but natives insist they are in higher country during the day.

Sr. Helfegio insists that the "urraca cabeza negra" is common in this region. His small son (about 10 years) ~~does~~ did not make the distinction between the "azul" and "negra" when I questioned him. Helfegio claims "negra" is more robust and shorter tailed (which is correct!). One native farmer we met distinguished the two - claiming they are "equally common", two others I knew only the "urraca" - and did not make any distinctions. Helfegio knows the "Pepe-"

Calocalta

Santa Rita, Chiapas, Mexico

Oct. 12 or brown jay — but say nothing about it in particular. He claims "negra" and "azul" occur together — that is, in the same flocks. He reports that the perch on cattle and pick insects from their heads & backs. A native farmer told same thing to me. Helfego seems surprised that we are unable to find jays in this area during mid-day. Claims they are usually common here throughout the day. However, without exception the 4 native farmers we questioned reported jays present only very early in morning and late in afternoon.

Oct. 13 Heard a single call about 5:00 P.M. from the patch of forest directly north of camp across the arroyo. Unable to locate the bird, however. A ringing, almost explosive "phew". Sr. Helfego still insists the black-headed jay is usually common in the area. During the breeding season this may be true but at this season the jays are spending the day elsewhere. We hunted for several hours in early morning and for 2 hours just before sunset without success. The only ~~jay~~ large jay heard all day was the one mentioned above. Talked with two more Mexican farmers here. Neither distinguished two "urracas" — they know the "urraca" but that is all.

Calocitta

Santa Rita, 3000 ft., 5 mi. N San Fernando, Chiapas

Oct. 14 No jays heard this morning. Hunted in a large circle around camp. This is second day in a row that we have not heard jays calling in the morning, ~~and~~ this leads me to suspect that there is no daily altitudinal movement as I at first thought. The bands of jays may be only wandering around the hills randomly. Talked with a woman at a hut about 1 mile north of camp. She claimed "urracas" were common around here place "early" and "late" in the day. — In talking with a number of Mexicans in the past few days I am beginning to suspect that many of them are willing to say they have seen "urracas" even when they have not — or even when they don't understand what an "urraca" is. They are always quick to shift from "mucha urraca" to "mucho animales". I don't think any of their stories can be trusted. This Señor Helfego still claims that they are common here — or should be —. Bonifacio has hinted to me that Helfego lied about the abundance of jays here at Santa Rita in order to interest me in coming up here. This is probably true.

On his own Bonifacio has made it known to some of the men-farmers around here that I am willing to pay 35 pesos for a black-headed "urraca". He says that several of the men are going out hunting with a rifle tomorrow and will deliver any jays (blck. headed) to Alvarez del Toro in Tuxtla.

R.K. Selander,
1953

Caloscitta

Santa Rita, 3000 ft., Chiapas, México

Oct. 14 Talked with one of these men this afternoon. He claims that there are "muchas urracas" on a monte Cristo, about 14 kilometers to the north of here — beyond the Monte de la Pluma. According to him — "urraca cabeza azul" is common — "urraca cabeza negra" is rare. He seems to distinguish the two without hesitation. (Incidentally, this "Monte Cristo" is not the same one as that near Suemidero.)

Oct. 15 No jays around camp in morning. While on our way to San Fernando, 4 Caloscitta crossed the trail near a corn field about 1 mi. N of San Fernando, and at about the same altitude. I was able to get one specimen — typical formosa.

——— In talking with Alvarez tonight I got the following dope regarding jays.

① The specimen of black-headed jay he took in January at Santa Rita was a solitary bird. He remembers nothing about calls it may have made. It was taken at the edge of a patch of forest near camp — near a grassy area. He saw several Psilorhinus there at Santa Rita during his 4-5 day stay but they were not in the same flocks with Caloscitta.

② Eight years ago he made a trip north west from San Fernando to a town called Quechula, near the Rio Grijalva, in the true humid lowland Tropics. Brown jays were "very common" there. At a point 50 mi. N Santa Rita, this side of

Calocitta

Tuxtla Gutiérrez, Chiapas, México

Oct. 15 Quechula there reportedly is a Cerro Chiquihuite where there is deciduous forest "like that at Sumidero" (the forest at Sumidero is mostly evergreen however). Alvarez has "some idea" of seeing Calocitta there 8 years ago, but he is not sure and he has no field-notes for that trip.

③ This year Alvarez (April) made a horse-back trip to a Rancho San Juan, 440 meters, just north of Monte de la Pluma. Says most of area has been burned — ~~much~~ coarse grass then now. Other vegetation "about like at Santa Rita" Alvarez reports brown jays were "scarce - not common" there. He says he found a nest there. About 4 birds (brown jays) seen each day.

④ only other place in Chiapas he has seen brownjays is at Ocosingo, where they are "very common - thousands" No Calocitta. Elevation said to be 800 meters. Vegetation humid evergreen - "not like that around Tuxtla (ie. the deciduous forest). Alvarez says it is possible to get to Ocosingo only by plane at this season.

⑤ Alvarez has never been north of Quechula, Rancho San Juan, Sumidero — so he knows very little about the area to the north of Tuxtla.

⑥ Road, or rather trail, to Quechula does not pass through Santa Rita and along the Rio Barrancon as I would have expected. Alvarez

R.K. Selander, 1953

Calocitta

Tuxtla Gutiérrez, Chiapas, México

Oct. 15 says it heads NW from San Fernando.

(7) Alvarez thinks there may be some humid forest on top of Monte de la Pluma, but says it is impossible to get up there. Natives around Santa Rita told me the same thing. Also there apparently is no trail down NW along the Rio Barrancon.

(8) Alvarez is confused in his terminology of the vegetation. What he calls "rain forest" is probably "cloud forest" as described by Leopold. I have seen no true cloud forest in my work at Sumidero or at Santa Rita. However, beyond Santa Rita there must be some more humid evergreen forest - possibly cloud forest - since Alvarez speaks of certain birds found only in "high humid forests (= his "rain forest") such as the Emerald Toucanet. The evergreen forest at Sumidero and at Santa Rita corresponds to the Selva alta Siempre Verde of Miranada's classification of Chiapas Vegetation. Ficus and mango are common large trees. Some ~~[illegible]~~ chicle I believe. Some of the trees are huge and there are manly vines hanging from them. Quite a bit of epiphytic vegetation present. A dense, but low understory of evergreen & deciduous shrubs & herbs. There is a patch of this evergreen forest at Zapotal, south of Tuxtla but on top of the mountain there is a dry, deciduous scrub forest.

No - see beyond

R.K. Selander, 1953

Calocitta

Tuxtla Gutiérrez, Chiapas, Mexico

Oct. 15 (9) At a spot "1 hour west" of San Fernando Alvarez reports a humid forest (= his "rain forest") where the land is less rugged than at San Fernando. About same elevation as Santa Rita (= ± 3000 ft.). Alvarez spent two days there some time ago.

Chiapas name Clorhinus "Pea"

(10) There is a man, originally from the Monte de la Pluma region, at the Botanical outfit of Miranda's. Alvarez is going to question him about trails and vegetation in that area.

Oct. 16 Took two Calocitta formosa from flock of 6 4 mi. S Tuxtla, 2800 ft., on top of the mountain in a dry, deciduous scrub forest. The mesquite-like tree is common, along with some giant agaves, a few medium-sized, broad-leafed evergreen trees. Also took one bird from flock of 3 about 2 mi. S. Tuxtla, 1900 ft., at base of the hill in farming land — with a few large deciduous trees.

(Alvarez has a record of seeing Chordeiles minor flying over Santa Rita on April 20, 1953 — probably migrants.)

Oct. 17 I was mistaken in thinking Alvarez's "rain-forest" was cloud forest. In his "rain forest" the trees are about the same as in the evergreen forests at Sumidero & Santa Rita, but Alvarez says the trees are larger and the climate is wetter — the air more moist. He says there is no true cloud forest — with oaks, tree ferns, etc., around Tuxtla unless on top of the Monte de la Pluma.

. K. Selander,
1953

Calocitta

2 mi. NE Tuxtla Gutierrez 1800 ft, Chiapas, México

Oct. 17 Near the Rio Sabinal I ran into a flock of 4 birds. Shot one and the others starting "Carring" excitedly and stayed in the large trees so I was able to get 2 more the other one stayed around a short while but I was unable to get a shot at it. Composition of this flock was surprising — 2 of the three birds taken were adult females, the other was a jemenile. There is some slight possibility that I mixed the specimens up — I took one other bird later — but I doubt it. In any case my field nos. 1617 (♀ ad.) and 1619 (♂ juv.) were two of the birds taken from this flock of 4 - I am positive of this because I put dried leaves in their throats at the time I shot them.

Jays are in better plumage than earlier in the month. Outer primaries & crest feathers of adults are still ensheathed, however.

Calocitta especially common in the farming area along the Rio Sabinal.

The other specimen taken today was shot from a flock of 3 or 4 in a spot just about 30 yards from the river — from a medium-sized tree in a orange-tree grove. - But bird was not in an orange tree.

Calocitta formosa

Tonalá, 180 ft., Chiapas, México

Oct. 23 Noted numerous ~~of these~~ birds this species in trees from Arriaga to Tonalá in about same habitat situation as at Tuxtla, but trees longer and much more grassy area.

Near Tonalá we ran onto a flock of 6 or 7. I got 2 with one shot, then another as it perched above the other two and "cawed" excitedly. Got one more as it flew toward a large tree about 75 yards from the patch of trees where I first found the flock. I only wounded it so we picked it up and tried to get some noise out of it — but it only "cawed" rather softly — (Have color shot of Bonifacio with this jay in the field of grass — The large trees will be shown in the background). Meanwhile, another bird from the same flock perched in a tree about 75 yards away and "cawed" loudly — a simple harsh "caw - caw". Specimens taken were two adult females (one slightly doubtful whether adult - but probably so) and 2 juvenal males — Again a flock with more than one adult female. — With two or more shotguns it would be a fairly simple matter to collect one entire flock.

Oct. 25 - Heard two or more jays giving the "urrr" - "urrr" note - rather softly. These birds were not behaving, unaware of my presence while giving this note. In any event the

Calocitta formosa

Tonalá, 180 ft., Chiapas, México

Oct. 25 common note when alarmed is the excited "caw". This "urr" note is not given when the birds are disturbed — I suspect it is a "foraging note" of some sort.

Jays apparently not quite so ~~common~~ abundant around Tonalá as I thought after the hunt of Oct. 23 - However, they are common. Definitely less wary than birds at Tuxtla — much easier to approach.

La Polka, sea-level, Chiapas, México

Oct. 28 Shot a lone bird which we found in a small dead tree near a tiny stream at the edge of a hill NE of the settlement of La Polka. Later in the day we saw a flock of 15 or more in a dead tree in the center of a milpa - about ½ mile from the spot we had taken the lone bird. Natives at La Polka claims this species is "common" here. There use two names = "urraca" and "chawa" for this species. Natives around Tonalá also use both names.

5 mi. SW Tonalá, 100 ft., Chis., México

Oct. 31 At about 6:00 P.M (just at dusk) we ran on to a flock of 35+ birds in a large dead tree a guanacaste - just along-side the road from Tonalá to Puerto Arista. I shot one bird and the flock scattered in all directions to various nearby trees. Took 2 more specimens.

K. Selander,
1953

Calocitta formosa

Tonalá, 180 ft., Chis., México

Nov. 2 A flock of 6 birds in trees + hedgerow just SW of town. We got right under the tree before the birds flew and I got a good earfull of the "caw" or "call". It is delivered with an almost explosive accent. Also a short whistle note. ~~but~~ was given by one of the birds.

K. Selander,
1953

Xanthoura yncas

Trixtla Gutierrez, 1732ft., Chiapas, Mexico

Oct. 2 This jay said by Alvarez to be numerous in the "forests" to the south of north of Trixtla, especially to the south 4 km. at Zapotal.

Oct. 4 Alvarez said this species occur only in the forests to the south of Trixtla — at Zapotal, not in the fields or scrub around Trixtla.

Oct. 6 Alvarez reported 4 around the Museo this afternoon. He says they usually are tame and that he always shoots them with .22 shot. They are more common at Villa Allende than around Trixtla, he said.

near Sumidero Gorge, 4800ft., 10 mi. N Trixtla Gutierrez, Chiapas, Mexico

Oct. 7 Found several small flocks in rain forest along road. They are less shy than Calocitta and will often fly in to imitations of their calls. Their common call is "ʒchea-oo - ʒcheo, ʒcheo" sounding a bit like that of Centurus aurifrons. They frequent the thicker portions of the ~~chee~~ forest in places where, because of dense understory, it is almost impossible to find them once they are shot and fall. Took a juvenile which is molting heavily on the head. Iris a dull grayish-brown. Noted no Calocitta in the rain forest — its range is lower down — in the deciduous forest at low elevations around Trixtla.

K. Selander, 1953

Xanthoura yncas

Santa Rita, 3000 ft., 5 mi. N San Fernando, Chiapas, Méx.

Oct. 13 Have found about 10 different flocks here in past several days. They invariably frequent the dense parts of the forest — never forest edges or fields. Average size of flock is about 5 birds. They are very noisy and respond well to imitations of their calls & to various other calls & owl notes but in this dense vegetation they are difficult to collect. The natives here call them "quisquis" — a name apparently derived from their calls. Actually their common call sounds more like "how-how" or "cow-cow" or "cew-cew" to me. Usually 2 ~~or~~ notes given together in rapid succession — but often three — "how-how-how". This call is nasal in quality. Another call is liquid — whistle like — reminding me of certain notes of Centurus aurifrons. Again this call is given in twoo or threes in rapid order — "chēo-chēo-chēo". When excited the nasal calls are run together producing a confused chorus of noise when several birds call together. Their flight is rather slow and direct but ~~and~~ they tend to work through the trees rather than flying up and over them.

Campylorhynchus zonatus

Tuxtla Gutierrez, Chiapas, Mex

Oct. 2 Alvarez del Toro said he has seen this species on the "mountain" to the south of Tuxtla, alone Zapotal. Mentioned having seen a few flocks of them there but didn't give the date.

Oct. 10 Santa Rita, 3000 ft., 5 mi. N San Fernando, Chiapas
Found a large flock in trees about ½ mi. W of camp. Watched them climbing quickly along the branches, vertically and horizontally, and in outer branches, among leaves, searching for insects. The pay particular attention to clumps of epiphytic vegetation in crotches. Are very agile and move rapidly. Keep up a constant chatter. Noted ~~several~~ several birds pick large insect larvae from clumps of epiphytic vegetation, moss, etc. on tree. Both adults & juveniles present. Noted an adult pick up a large insect larvae and feed a full grown juvenile which was perched on a horizontal branch. The young bird begged for the food when the adult approached. About 10 birds in the flock — 5 in same tree feeding at once. Seen to fly down to low bushes beneath tree. Birds often hang from trunk or branch to examine leaves or cracks in the tree trunk. Several times bird made

C. zonatus

Santa Rita, Chiapas, Mexico

Oct. 10 flights of 30-40 yards. Flight is rapid & direct — often glide before alighting. When feeding they keep up a constant chatter of semi-loud, simple notes. When disturbed their calls become louder & harsher. — will get full notes on calls in next few days. Did not collect specimens since I want to study the flock. Birds don't seem particularly inconspicuous in the trees & other vegetation — i.e. their marking & coloration does not conceal them especially well. Juveniles less wary than adults, but neither flee too readily when approached. Instead they become very noisy — when approached too closely them make a long flight to another tree. The flock seemed located in one particular spot as I found ~~them~~ it there on two occasions — 1½ hours between.

Oct. 11 Located same flock as yesterday about 75 yards from spot where they were first found. Very wary. Photographed a nest which Sr. Helfego claims is that of C. zonatus. Local name is "carpocha"

Oct. 12 Fairly common over whole area. Occur in flocks which are more or less widely scattered. Call when excited is "ĕarr, ĕarr, ĕarr" — foraging notes less harsh and without rolled "r" When excited several birds produce a confusing chorus — each one calling "ĕhet-ĕhet-ĕhet — ĕhet-ĕhet-ĕhet"

R.K. Selander,
1953

H. zonatus

Santa Cruz, 3000 ft., Chiapas, Mex.

Specimen: 1637

Oct. 20

Secondary 6 on rt. wing ½ grown

Molting on belly

R. K. Selander,
1953

Campylorhynchus humilis

Tuxtla Gutierrez, Chiapas, Mexico

✓ Oct. 2 Saw specimen in collection of M. Alvarez del Toro — from Arriaga. In good plumage.

[This specimen now in MVZ.]

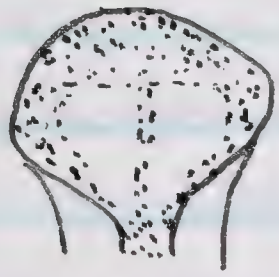
P. K. Selander,
1953

Heleodytes nigricaudatus

La Polka, Chiapas, México

Oct. 28

Specimen 1687 =



Specimen 1688

= less ornithalin than # 1687

Found one flock of 4 birds in a patch of bushes and low deciduous trees near the railroad track and bordering a milpa. First noticed the wrens working on the outer branches and twigs of the bushes — silently. Shot one of two seen and then the other. the third flew into a stand of small deciduous trees and I couldn't locate it. Shot a third bird near the first two but couldn't find it in the thick, tall grass.

About 30 yards away in a similar situation found 2 more birds. Shot one which was perched about 2½ feet above the ground in a dense bush but apparently didn't kill it. — all birds were silent. At dusk we heard no singing of wrens and I can only conclude that the birds are 1) either uncommon in the area (this contrary to info. from natives) or 2) are not singing at this season.

R. K. Selander,
1953

Heleodytes chiapensis

Tonalá, 500 ft., Chiapas, México

Oct. 29 Specimen 1641 = iris totally reddish-brown, perhaps a little darker than in specimens of zonatus I examined a few days ago. Center of eye black. Iris redder than the color of the dorsum. Maxilla totally black or dark grayish-black. Mandible gray beneath and half-way up on sides - grayish black at tip. Legs and feet a slate grayish blue or rather blueish gray. Base of tongue dull orange or brownish orange.

Plumage: All tail feathers except 2 central (= 1-1) ensheathed. Belly feathers ensheathed. A few feathers on post. dorsum ensheathed but mostly not. Few on back ensheathed. Few on head and breast.

Right wing: Primaries: Outer 2 old, 8 short and ensheathed, 7 ensheathed, 6 ensheathed, others new & full grown. 10th upper coveret short & ensheathed, 9th old, others new and full grown. Secondaries: 1st. ensheathed just a base, 2 short, 3, 4, 5, old, 6 ensheathed a base, 7, 8, 9 ensheathed at base new. and full grown; greater & lesser coverts (secondary) all new & full. - All under coverts along secondaries (1 row) are ensheathed. Inner most greater under primary coverts new, other ones along line to wing tip ensheathed, outer 2 old. These greater under primary coverts (1 row nearest primaries are dusky, all other under wing coverts are white

Left wing: Primaries similar to right but a little behind. Secondaries similar. Coverts similar. Primary coverts dropped just a little before the primary.

R. K. Selander,
1953

Heleodytes chiapensis

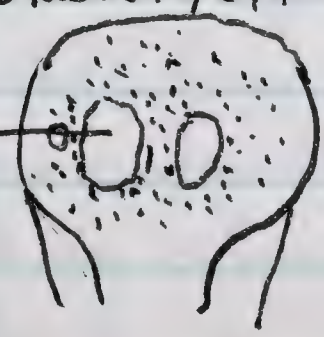
Tonalá, Chiapas, México

Oct. 28 Main alula feather of left wing is old, that of right is sheathed and short.

Iris lighter, less red than #1641. Bill & legs & feet similar.

Specimen 1642: ¼ Tail & coverts as in 1641. Dorsum behind 1641, head behind also. Entire underparts sheathed. Right wing: Primaries: 10-8 old, 7 short - also its greater upper covert, 6 sheathed & upper covert new, 5 sheathed a little, others new. First row under primary coverts old but 2 sheathed with old one between, 2 row all sheathed with inner ones longest. Secondaries: 1 full new, 2-3 sheathed, 4-6 old, 7 short, 8-9 new, several inner great. sec. coverts sheathed, under sec. coverts old. Leading edge sheathed, inner ones being longest. Alula old, its coverts sheathed. Left wing: Primaries: 10-8 (tips worn off) & upper coverts old, # 7 & covert (upper) sheathed, 6-# sheathed with full new upper coverts, rest complete new. Secondaries: 1, 2 (new) sheathed, 3 sheathed, 4-6 old, 7 short 8-9 full. Under primary coverts similar to left wing but ~~not~~ inner few of first row sheathed. Alula short, sheathed.

Skull #1641



removed but thick - not thin as in true females.

Skull #1642

I think these specimens are adult. The clear areas are not so clear or thin as in juvenal birds.

K. Selander, 1953

Heleodytes chiapensis

Tonalá, Chiapas, México

Oct. 23 Specimens 1641-2 were taken in a patch of bull's horn acacia and other thick broad-leafed vegetation near a house just a short distance from the river. An area of several stagnant pools of water in which numerous frogs were croaking. Took an Ictria virens at the same spot. I was first attracted to the birds by hearing a low, husky chatter which recalled that of other species of the genus — it was lower & more hollow or throaty. Two inca doves had flown into a small tree-bush and there was a chorus of chatter when the doves lit in the tree. The wrens definitely got chattering in rhythym for a moment but broke the rhythym soon. These birds make a great variety of sounds — some quite surprising. I got a shot at one wren as it was working up a small branch in much the same way I have seen C. humilis do. I expected the other to flee silently but instead it kept on chattering and after chasing it from tree-bush to tree-bush and taking three more shots at it I finally got it. This bird stayed well into the center of the tree-bushes and was usually hidden from view by the dense foliage. It never came out ~~in the~~ on the ends of branches. It kept up an almost continous chatter. I chased it about in a very small area — it seemed reluctant

R. K. Selander, 1953

H. chiapensis

Tonalá, Chiapas, Mexico

Oct. 23 to leave the immediate area where I first found the two birds. After collecting the two - apparently no others were there - I noticed nests in a small bull horn acacia tree at about the center of the area and surrounded by stagnant pools (color photo). Four fairly good-sized nests - about size of brunneicapillus - and a smaller nest - 1/4 the size of others were together in the tree. I poked each nest but no birds flew out. Gonads of both birds - a ♂ & a ♀ were reduced and birds were in last stage of molt - hence were the young of the year.

Saw no other of these wrens in my morning's hunt. this situation definitely ~~of~~ over wet ground and standing water. This may be important. No humilis seen today.

Oct. 24 See notes in itinerary section:

Specimen 1650: R. Wing: 10th prim. old, 7-9 ensheathed all greater upp. prim. coverts look ~~new~~ juv. ~~except #1 is old,~~ ~~[illegible]~~ & none ensheathed outer 3 secnd. great. prim. coverts old, others ensheathed Second. 7 short, others full & new. Sec. upper cov. all new. Under great. sec. cov. ensheathed farther ahead proximally. Alula & its covert ensheathed. Some leading marginals ensheathed. L. wing: Primaries-10 old, 7-8-9 ensh. Alula & its covert ensheathed. Secondary 7 ensheathed & short- Coverts same as in right wing.

H. chiapensis

Tonalá, 180 ft., Chiapas, México

Oct. 24 Specimen: 1651: Left wing - 3 central g. s. c. (upper) ensheathed; scapulars ensh. Rt. wing similar. Dorsal pteryla ensheathed, also ventral. Under tail coverts very short, ensh. Rt outer rectrix ensheathed. Upper tail coverts on right side ensheathed.

Specimen 1650: iris light brown rimmed with a gray cuff. Feet & legs dull bluish slate. ♀juv.

Specimen 1651: iris a dull olive brown - light. Legs and feet same as 1650. ♀juv.

Skulls of these two were unossified, but 1650 was beginning ossification in the post-orbital region. This specimen also had a larger ovary - apparently older than the other, yet they were together in the same flock! Ovary of 1650 sexed.

Oct. 25 SE Tonalá, 180 ft., Chiapas, México

Specimen 1654: Iris full reddish brown - just about the color of the wood of the weight box. Feet & legs bluish slate. Left wing: Primary 10+ upper covert ad.; 9-8+ upper coverts just a little ensheathed. Sec. 1 new, ~~[illegible]~~, 2 short, 6 ensheathed a little, alula & covert ensh. Greater under prim. coverts: outer 2-3 ad, then 2 ensh., rest new - dusky. Under second (greater) ensheathed. Rt wing similar.

Specimen 1655: Left wing: Prim. 10-9 ad, 8 ensh. 5-7 ensh., other ad. All u. p. cov. juvenal, ad; alula & covert ad — Peculiar - ~~prepared with wing extended~~. Iris a dull pale brown.

P. K. Selander,
1953

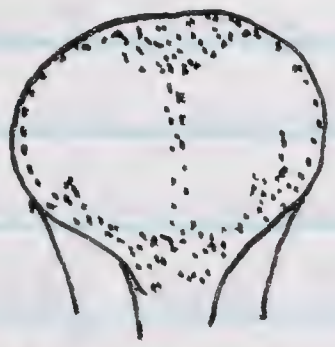
H. chiapensis

SE side Tonalá, 180 ft., Chiapas, México

Oct. 25 ~ Specimen 1656: Inner two primaries old, others new. Two of the median secondaries sheathed a little at base. Tail looks juvenal - some feathers sheathed. Iris brown darker than 1655, not so red as 1654.

~ Specimen 1657: ~~Iris full red-brown as in~~ Iris dull brown.

~ Specimen 1658 - Iris full red-brown.

~ Skull of 1655:  = "partial ossification"

~ Skull of 1656 - about the same as 1655.

~ Skull of 1657 without ossification - except for a few pillars.

At about 6:30 this morning we collected a wren of this species in a situation very similar to that in which I have taken the other specimens during the last two days. A thicket of densely leafed small tree-bushes, some covered with Convolvulus which is in full bloom. Again bull-horn acacia was present and the situation was more humid than much of the surrounding area — a wide fence row of bush-trees bordering the road and not too distant from houses and the river. Again noted Setenia sciurus and the lizard — these seem to be "indicator species" for H. chiapensis habitat — I have invariably found the three together in same vegetation.

H. chiapensis

SE side of Tonalá, 180 ft., Chiapas, México

Oct. 25 We crossed the large river on the road said to lead to Puerto Arista, then headed south through grassy fields where there are many cows. There are semi-large to small trees - mostly broad-leafed scattered in these pastures but most patches of trees lack the tender cover of bushes which the wrens seem to favor - Perhaps the situation is too open and exposed. Did not notice much bull-horn acacia - except in small patches, mostly near the river. I believe that we hunted carefully enough through the open meadow and in the trees along the major roads to have located wrens if they are indeed in that sort of habitat. However we failed to find a wren in 3 hours hunting and it was not until we returned to almost exactly the same spot where we collected the first wren in the morning that we found more of them. Heard what I believe was two flocks - one on each side of the dirt road. At least two birds in one flock and 5 in the other, 4 of the latter were collected - a ♀ and three juvenal males. Another bird escaped. Just after shooting these birds I found two nests placed in a small bull-horn acacia tree - perhaps 8½-9 feet above the ground. Other bull-horn acacia nearby but no nests. The tree with the nests was located just

K. Selander, 1953

H. chiapensis

SE side Tonalá, 180 ft., Chiapas, México

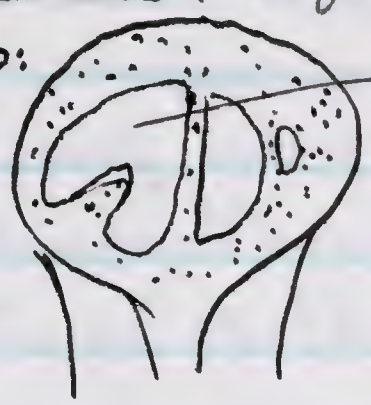
Oct. 25 at the side of a well-travelled road where people are continually passing on foot, on horses, and with oxen-drawn wagons. The tree itself was exposed and quite apart from surrounding trees. Will get a photo tomorrow and take the nests for examination. I am almost certain that these nests are those of the "chancuaca" — this was confirmed by two boys I questioned — they were living in a stucco hut about 3040 yards south of the tree. — Again in this situation the becard, Icterus virens and Icterus gularis were present.

Still no sign of humilis. This is strange as Brodkorb claims both species are common in hedge-rows just south of Tonalá. I don't know in what season Brodkorb visited here — but I have a hunch that I will find humilis farther south now — perhaps nearer the ocean bordering the mangroves as I found them at Acapulco. As of now I would swear that only chiapensis is present in the immediate vicinity of Tonalá.

Another small boy claimed the "chancuaca" is more common in the "monte" but by now this sort of info. is less the usefers and should never be trusted.

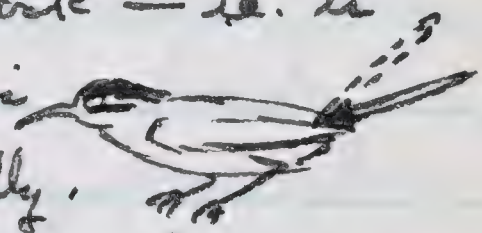
H. chiapensis

6 mi. S Tonalá, 180 ft., Chis., Mex.

Oct. 26 - Specimen 1680:  clear but thick

2½

~~3½~~ mi. S Tonalá, 180 ft., Chis., México

Oct. 26 A nest in a tree overhanging a small stream or ditch at side of road. Have photo but light setting is wrong so will get another. Watched their nest for about ½ hour. 3 birds were working in the vicinity of the nest - specimens 1663-5, an ♀ ad., a ♀ juv. with very little ossification in skull, and a ♂ having partially ossified skull. Two birds seen at the nest at one time, one carrying a twig. Later two birds flew down to a log together - the third bird rather quiet and inactive. No other birds in the immediate area, although I could hear others calling in field across the road, only one nest in the area. Birds seem to work through vines and small branches of trees, moving rather slowly. Tail often is "half-cocked" over the back — i.e. is raised from the horizontal like this  but usually carried almost horizontally. Birds seem to work at a variety of levels but are fond of rather low situations; frequently perch on fence posts — sometimes on logs on the ground. only found high in trees when disturbed by gun shots.

K. Selander,
1953

11

H. chiapensis

6 mi. S Tonalá, 180 ft., Chis., México

Oct. 26 Numerous in hedgerows from 3 - 6 miles S Tonalá - rarely out of ear hearing during the day. One of the most numerous of birds here. Preferred spots are the thick hedgerows bordering the road, but also present in clumps of bushes and small trees in fields. Their being less common around Tonalá may be due to fact that there much of the ~~wood~~ real bushy hedgerow vegetation has been cleared so that only the larger trees remain. Beyond 3 mi. S the hedgerows are thick, forming an understory about 10 - 15 feet in height beneath the larger trees — also bull-horn acacia is more abundant. This latter undoubtedly is the preferred tree for nesting - at 3 mi. S Tonala I noted 5 nests in a single small tree. Near this tree - which was in a clearing there was a thick patch of small trees with many thorny vines on the ground and in the trees — a large flock of wrens here. Flocks seen about 6-7 birds, maybe more. Likely to run into a flock anywhere along the road so habitat is not just one particular tree. Their habitat seems to be the bushy vegetation and small trees bordering pastures and the road — also trees about casas. — a few coconut palms and bananas in the area 6 mi. S Tonala - Some of the trees incidentified are:

H. chiapensis

3-6 mi. S Tonalá, 180 ft., Chis., México

Oct. 26 Ceiba, Mango, Guanacaste, Primavera, Mora, Totopaste - all of these by my guide?. Will get specimens for identification by Miranda. The vegetation is mixed deciduous - evergreen with more of the former. Many good-looking milk cows grazing in fields - apparently big business here. Noted no real change in vegetation as compared to Tonalá outskirts except fences were thicker - trees perhaps larger but perhaps not. Will take some more looking. In any event the trees are much larger than those found in the forest on the foothills to the north of Tonalá. Miranda calls the foothill region his "Selvas Bajas Deciduas" while the Tonalá vicinity is "Sabanas y selvas altas subdeciduas". According to Miranda's map there is a zone of "selvas bajas deciduas" along the coast south of Tonalá and then zones of Palmares and Manglares. Also Miranda shows the "Selvas altas Siempre Verdes" on the hills to the north-east of Tonalá. Must investigate this forest. H. chiapensis should be there.

Still no sign of Sceloporus!

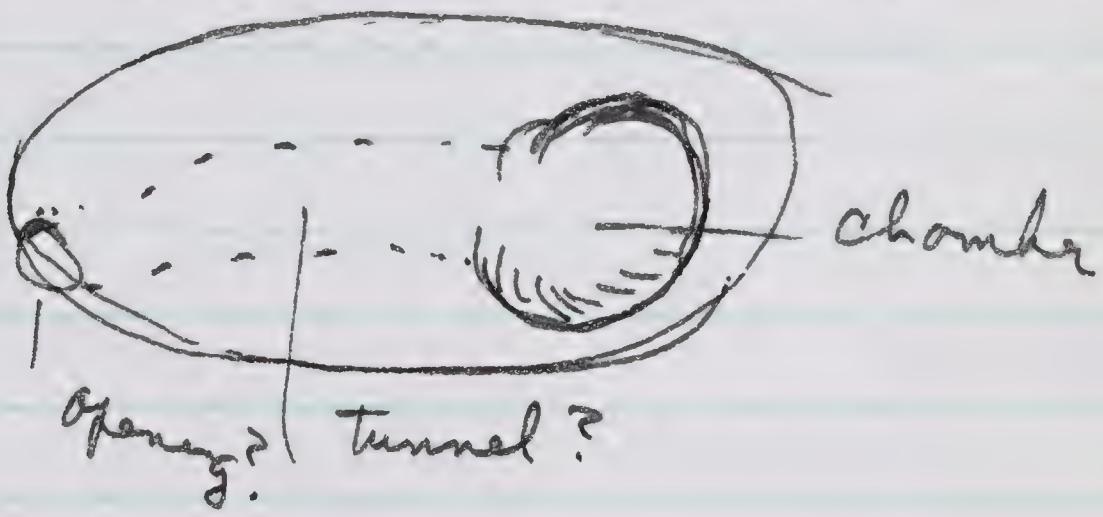
Native boy brought me 3 specimens he took about 4 miles NW of the Hotel Gonzalez - in the towns - apparently with a flipper. Paid him 4 pesos for each.

P.K. Selander, 1953

Tonalá, 180 ft., Chiapas, México

Oct. 27 Tore apart two nests – probably this species – in a bull. horn acacia – "ICHCANAL" – both about same size 14-15 inches long 10 inches in diameter. at one end a round chamber of fine grass and twigs + feathers of chicken (?) and either ani or grackle. Rest of nest made up of fine to coarse dry twigs and pieces of bark, with some coarse grass. Opening(s) not readily visible. Nests contained no feathers of the wrens that I could see; ~~although~~ but my examination was hasty.

Nest probably put together something like this



Oct. 31 Noted 5 birds on ground – hopping rather awkwardly in big hops. Birds picking up nesting material. Also found numerous birds in small groups around a large dead tree which had fallen over. One family centering around this tree, another about 75 yds. away in same field and another just across the road.

SELANDER, R.K.

MISCELLANEOUS, JANUARY 27-30 1954

CALIFORNIA, BERKELEY

CATALOGUE NOs. 1730, 1731

R.K. Selander,
1954

Univ. California Campus, 100 ft., Berkeley, Alameda Co., California

January 27, 1954

1730 ♀ad. Melospiza melodia ovary 113 Mod. fat 19.1gms.

January 30, 1954

1731 ♂ad. Pipilo fuscus Testis 0 Found dead by Mrs. J.W Kelly's Bird-class. 59.0gms.
Several bloody spots in roof of skull. No other indications of injury; presumably killed by blow on skull while flying into an obstacle.

SELANDER, R.K.

MÉXICO

MARCH 8, - JUNE 26, 1954

CATALOGUE NOS. 1732-2493

JOURNAL

*SPECIES ACCOUNTS

BIRDS

* in next volume

SELANDER, R.K.

MEXICO, MARCH 8-JUNE 26, 1954

CATALOGUE NOS. 1732-2493

JOURNAL

* SPECIES ACCOUNTS

BIRDS

* in next volume

R. K. Selander,
1954

16 mi. SE Chihuahua, 4800 ft., Chihuahua, Mexico
March 11, 1954

1732 ♀ ad. Amphispiza bilineata ovary ⊙ Slightly fat
1733 ♂ ad. " " Testis ○

12 mi. NNE Maza, ± 6200 ft., Durango, México
March 12, 1954

1734 ♂ ad. Campylorhynchus brunneicapillus wt. 40.0 S.C.O. Testis ○ some fat-iris full red-brown
1735 ♂ ad. " Testis ○ S.C.O. iris Little fat full red wt. 39.0

7 mi. E Queretaro, 5970 ft., Queretaro, México
March 14, 1954

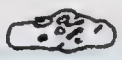
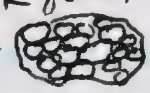
1736 Set of 3 eggs of C. brunneicapillus
1737 ♂ Campylorhynchus brunneicapillus Testis ◯ S.C.O. iris full red Slight fat Tuna cactus
1738 ♀ " " ovary = ⊙ No brood-patch S.C.O. oviduct not enlarged iris semi-full dull brown.
1739 ♂ " Testis ◯ S.C.O. iris full-red " "
1740 ♂ " Testis ◯ Iris full-red S.C.O. " "

20 mi. W Tequisistlan, 3000 ft., Oaxaca, México
March 16, 1954

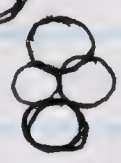
1741 ♂ ad. Calocitta formosa Deciduous forest S.C.O. Testis 12 mm.
1742 ♀ ad. " " S.C.O. ovary ⊙

1.5 mi. NE Los Amates, 2600 ft., Chiapas, México

March 17, 1954

	1743	♂	Thryothorus pleurostictus	S.C.O.	lower mandible light gray; iris brown; Testis O
Skel.	1744		"	"	iris dark brown – some red.
	1745	♀	Piranga flava	S.C.O.	ovary 
	1746	sex?	Leptotila verreauxi		
	1747	♀ ad.	Glaucidium	edge of pine-oak forest; ovi duct enlarged; ova 	87.4 gms

March 18, 1954

	1748	♂	~~Otus~~ Glaucidium	Testis	iris yellow; same locality as #1747	68.3 gms
	1749	♀	Nyctibius griseus	ova 	ovi duct enlarged; iris bright yellow	284.1 gms.

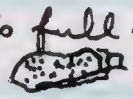
March 20

2.8 mi. NW Tonalá, 100 ft., Chiapas, México –

	1750	♂	Thryothorus pleurostictus	Testis O	18.9

5.4 mi. NW Tonalá, 100 ft., Chiapas, México

March 20

	1751	♀	Campylorhynchus humilis	SNCO; iris full dark reddish brown; ovary  No fat	22.8
	1752	♂	"	"	iris full reddish brown; Testis O	24.5
	1753	♂	"	"	Testis O; iris full No fat	26.5
	1754	♀	"	"	ovary	21.6
	1755	♂	"	"	Testis O; iris full red-brown	26.8
	1756	♂	"	chiapensis	S.C.O. iris full; Testis O	50.8
Skel.	1757	♂	Thryothorus	pleurostictus	Testis O	19.7

3 mi. SSW Tonalá, 100 ft., Chiapas, Mexico

	1758	♂	C. chiapensis	Testis O	55.5 gms.

4.8 mi. NW Tonalá, 100 ft., Chiapas, México

March 20

	1759	Lizard		
	1760	"		
	1761	"		
	1762	"		

5 mi. E W Paredon, 50 ft., Chiapas, México

March 21

	1763	♂	*Aimophila ruficauda*	iris reddish-brown Testis ○ 40.6
	1764	♀	" "	iris light reddish brown ovary 31.9
Skel.	1765		*Thryothorus modestus*	iris brown (no red) Testis ○○ 17.0

3.6 mi. E W Paredon, 50 ft., Chiapas, Mexico

March 21

Mounted experiment — liver destroyed	1765	♂	*Campylorhynchus chiapensis*	Testis ○ iris full 51.2

3 mi. SSW Tonalá, 100 ft., Chiapas, México

March 21

	1767		Lizard	

3.5 mi. SSW Tonalá, 100 ft., Chiapas, México

March 22

family group	1768	♂	*Campylorhynchus chiapensis*	iris about same color as back full T = ○ 52.9
	1769	♂	" "	iris same color as the back-full T = ○ 50.6
	1770	♂	" "	iris full T = ○ 54.6
	1771	♂	" "	iris lighter red-brown than back T = ○ 54.0
	1772	♀	" "	ovary 46.8
	1773	♂	" "	Testis ○ iris rather light brown 48.3

3.5 mi. SSW Tonalá, 100 ft., Chiapas, México

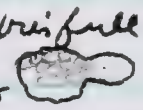
March 22

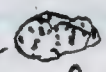
skel.	1774	♂	Campylorhynchus chiapensis	Testis ○	52.7
skel.	1775	♂	" "	Testis ○	52.6
	1776	♂	- flycatcher	Testis ○	23.8
	1777	♂	Cassiculus melanicterus	Testis ○	102.0
alcho	1778	♀	" "		68.9 gm.
	1779		Iguana		
	1780		Lizard		

.5 mi. SW Quetzalapa, near Tonala, Chiapas, México

March 23, 1954

family group	1781	♀	Campylorhynchus chiapensis	iris pale brown ovary	43.6
	1782	♂	" "	iris med. red-brown Testis ○○	52.2
	1783	♂	" "	T = ○ iris full red-brown	54.7
	1784	♀	" "	iris pale brown not quite full ovary ova minute	40.0
sent to A.M.N.H.	1785	♀	" "	S.C.O. (!) iris full red-brown ovary	47.4
skeleton	1786	♂	" "	Testis ○	53.3
	1787	♀	" "	ovary = ova minute iris light brown	43.7
	1788	♂	Thick-billed yellow-throat	Testis ○	





3 mi. SSW Tonalá, 100 ft., Chiapas, Mexico

March 23, 1954

1789	Lizard
1790	"

2.6 mi. SE Tonalá (Rio Sanatenco), Chis., Mexico

March 24

1791	♂	Campylorhynchus humilis	Testis ○	iris full red-brown	30.6
1792	♀	" chiapensis	ovary	iris reddish brown - light	45.8
skel. 1793	♂	" "			54.6
1794	♂	Glaucidium brasilianum	Testis ◯		63.2
1795	♂	Momotus mexicanus	Testis ○		96.6

4.8 mi. SE Tonala, Chiapas, Mexico

March 24

1796	♀	Colinus virginianus	ovary		163.0
1797	♂	" "	Testis ●	$\frac{1}{4}$" sq. in skull Cant pillars	127.5
1798	♀	" "	ovary		148.7
1799	♂	" "	Testis ○	$\frac{1}{4}$" sq. in skull not ossified	147.8
1800	♀	Thryothorus pleurostictus	S.C.O. ovary	iris dull brown slightly red	18.7

2 mi. SE Ocuilapa (10.6 mi. SE Tonalá), Chiapas, México

March 25

+ skel.	1801	♂	C. nigricandatus × humilis	Testis ○	iris full reddish brown SINCO	28.9
	1802	♀	" " "	ovary	iris full	24.7
one group	1803	♂	" " "	Testis ○	iris rather pale reddish-brown	27.3
in + skel	1804	♂	" " "	Testis ● (black)	iris brown, rather dull	28.2
	1805	♂	" " "	S.C.O Testis ○	iris full reddish brown	27.8

Tonalá, 100 ft., Chiapas, México

March 25

1806 Lizard
1807 "
1808 "
1809 "
1810 "
1811 "
1812 "
1813 "

(=SSW)

4 mi. SW Tonalá, Chiapas, Mexico

March 26

1814 ♀ Campylorhynchus chiapensis iris not quite full-brown (some reddish) ovary 42.7g
1815 ♀ " " iris full reddish brown ovary S.C.O. 48.7
1816 ♂ " Testis ○ " iris full but light primary some retained 52.1
1817 ♀ " " iris full reddish brown ovary S.C.O. 44.1
1818 ♀ " " iris full but pale ovary 45.5
1819 ♂ " " iris full reddish brown Testis ○ 52.1
1820 ♀ " " iris half full-brown ovary 44.4
1821 ♂ " " iris full S.C.O. Testis ○ 52.6
1822 ♂ " " iris full reddish brown wing adult 49.3
1823 ♀ " " iris full reddish brown ovary 45.2
1824 ♂ " T=○ " iris full red-brown whole wing ind. primary coverts adult 54.4 5.5
1825 ♀ Thamnophilus doliatus iris yellowish-white ovary Brood-patch 25.0
1826 ♂ Saltator coerulescens S.C.O. Testis ○ 63.7
1827 ♀ Blue grosbeak S.C.O. ovary 26.0
destroyed 1828 ♂ Amazona albifrons Testis ○

2.7 mi. SE Tonalá, Chiapas, Mexico

March 27, 1954

Kin + skel.	1829	♀	Campylorhynchus humilis — iris full reddish brown; ovary ⊗ S.C.O.	24.2
	1830	♂	Thryothorus pleurostictus — iris dark dull brown; Tes is ○	19.1
	1831	♀?	Seiurus aurocapillus	16.5
	1832	♀	Chordeiles acutipennis — ovary ⊗ molting	44.0
	1833	♀	Todirostrum cinereum — iris white; ovary ⊗	5.6
	1834	♀♂	Saltator coerulescens — dull brown iris; ovary ⊗ Tes is ○ Heavily infested with Sarcocystis	61.0
	1835	♀	" " — dull brown iris; ovary ⊗	58.1
	1836	♂	Glaucidium brasilianum — iris bright yellow; Tes is ○	66.5
	1837	♂	" " — Tes is ○	66.5
	1838	♀	" " — ova ⊗ oviduct enlarged	105.8
	1839	♂	Trogon citreolus — iris bright yellow; Tes is ○	74.5
	1840		Lizard	~~9.7~~

March 28, 1954

3 mi. SSW Tonalá, 100 ft., Chiapas, Mexico

1841		Lizard
1842		"
1843		"
1844		"
1845		"
1846		"
1848		"
1848		"

Rancho San Francisco, 2 mi. SW Tonalá, Chis., México.

March 28, 1954

el. a pair	1849	♂	Campylorhynchus chiapensis	T= ○	54.2	~~15.2~~
	1850	♀	"	" ovary: ⊛ Skull NC.O. ○○ ← clear spots		50.4
	1851	♀?	Synallaxis erythrothorax		15.2	~~54.2~~

3 mi. SSW Tonalá, 100 ft., Chiapas, México

March 30, 1954

a pair	1852	♀	Campylorhynchus chiapensis	ovary ⊛ (same) S.C.O.	iris less red than 1853 and ♂ a light outer ring of dull gray or gray-brown	47.6
	1853	♂	"	T= ○ S.C.O.	iris full reddish-brown	51.1
	1854	♂	"	" T= ⊛○	iris brown, not quite full	53.4
	1855	♂	"	T= ○	iris brown, not quite full	51.7
	1856	♂	"	T= ○	iris full	52.0

2.5 mi. SSW Tonalá, 100 ft., Chiapas, México

March 30, 1954

	1857	♂	Campylorhynchus chiapensis		iris full Testis ○	53.9
Sent to U.M.N.H.	1858	♂	"	"	iris brown not full Testis ○	50.1
	1859	♂	"	"	iris full Testis ○ S.C.O. (?) ovary ⊛	54.0
	1860	♀	"	"	iris reddish brown, not quite full T= ○	46.7
	1861	♂	"	"	iris full - perhaps not quite	52.2
Sent To m. Mus. N.H.	1862	♂	"	"	iris full Testis ○ ovary ⊛	53.9
	1863	♀	"	"	iris full but brown	43.3
	1864	♀	"	"	iris brown ovary ⊛ T= ○	43.0
	1865	♂	"	"	iris brown, not full ovary ⊛	51.0
	1867	♀	"	"	iris rather pale brown S.C.O.	44.6
	1868	♀	"	ovary ⊛	iris full but not rich	45.0
alch.	1869	♀ on weight	"	"	wing adult ovary ⊛	42.6
	1870	♀	"	"	iris brown, not full	41.8

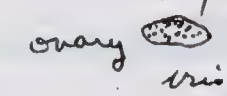
2.5 mi. SSW Tonalá, 100 ft., Chiapas, Mexico

March 30, 1954

1871	♀	Campylorhynchus chiapensis	ovary	iris full reddish br.	47.6
1872	♂	"	" T=○	iris full	50.7
1873	♂	"	"	iris full T=○	48.6
1874	♀	"	" ovary	iris brown - not quite full	40.4
Skel. 1875	♂	Thryothorus modestus	Testis ○		16.5

Rancho Oreonez, 12.1 mi. SE Tonalá, Chiapas, Mexico

April 1, 1954

1876	♂	Campylorhynchus nigricandatus	Testis ○	iris full reddish brown a little fat S.C.O.	30.6
1877	♂	"	" Testis ○	iris full reddish-brown S.C.O.	29.1
1878	♀	"	" ovary 	iris pale brown, not full	24.6
1879	♀	"	"	iris full oviduct enlarging ovary	26.8
1880	♀	"	"	iris full ovary	27.6 ~~24.5~~
1881	♂	"	" Testis ○	iris full S.C.O.	32.3
1882	♀	"	"	iris full ovary	27.2
1883	♀	"	"	iris full ovary	24.5 ~~27.6~~
1884	♂	Thamnophilus doliatus		Testis ○ iris dusky white	29.6
1885	♀	Kingfisher Chloroceryle a. septentrionalis		ovary	39.2
1886	♂	Thryothorus pleurostictus	T=○	iris dull brown	19.3
1887	♂	Xanthoura yncas	iris yellow	S.C.O. Testis ○	99.7
1889		Lizard			
1890		"			
1891		"			
1892		"			
1893		"			
1894		"			

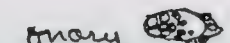
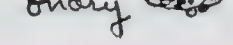
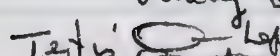
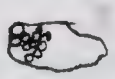
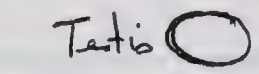
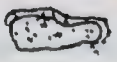
Mexican government

Rancho Orconez, ~~12.7~~ 16.1 mi. SE Tonalá, Chiapas, México

April 1, 1954

	1895		Lizard		
	1896		"		
	1897		"		
	1898		"		
	1899		"		
Skel.	1900	♂	Thryothorus pleurostictus	Testis ○	
	1901		Lizard		
	~~1902~~		"		

April 2, 1954

	1902	♂	Campylorhynchus nigricandatus	○=Testis	drown full/dull 31.6
	1903	♀	"	"	ovary 	iris full 25.0
	1904	♂	"	"	Testis 	a bit. full/light 29.3
	1905	♂	"	"	Testis ○	full dark 31.5
	1906	♀	"	"	ovary	not full iris full brown 25.7
	1907	♀	"	"	ovary	iris full 26.9
	1908	♀	"	"	ovary oviduct	iris full 26.8
	1909	♂	"	"	Testis ○	brown full 29.5
	1910	♀	"	"	ovary	brown full 25.1
	1911	♀	"	"	ovary	full 25.7
skel.	1912	♂	"	"	Testis  Left gray white prim. Coverts new (=adult)	full 31.4
	1913	♀	"	"	ovary 	full 25.5
skin + skel	1914	♂	"	"	Testis ○ prim. Coverts old	brown not full 30.4
skin + skel.	1915	♂	"	"	Testis 	full 31.6
	1916	♀	"	"	ovary 	full 22.8
skin + skel.	1917	♂	"	"	~~L~~C. Testis ○	brown not full 26.6
Skel.	1918	♂	"	"	T=○ — gray prim. Coverts new	full 29.0

16.1

Rancho Oconez, 12.1 mi. SE Tonalá, Chiapas, México.

April 2, 1954

1919 ♂ ~~Atlapetes~~ Halia gutteralis Testis ○ iris bluegray S.C.O. 37.8 gm.

1920 ♀ Megacoryle torquatus

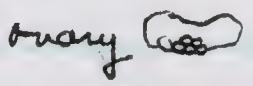
April 3, 1954

skel. 1921 ♂ Campylorhynchus nigricandatus prim. coverts T=○ new iris full light 31.1

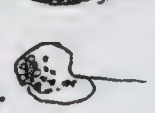
skel. 1922 ♂ " " prim. coverts new T=○ iris full 29.6

1923 ♂ " " T=? (rotted) iris full light 31.1

skel. 1924 ♂ " " prim. coverts new T=○ iris full 31.0

1925 ♀ " " ovary  iris full 27.5

1926 ♀ " " Ovary iris full 27.8

1927 ♀ " " ovary  —— 26.6

1928 ♂ Halia gutteralis Testis ○ 43.0

alcoholic 1929 " Thryothorus modestus iris brown about same as black 15.0

37.7

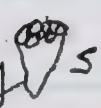
12.1 mi. SE Tonalá, Chiapas, Mexico

April 4, 1954

1930 ♂ Campylorhynchus nigricandatus Testis ○ large blueish slate-dull iris full 30.2

1931 ♀ " " ovary S.C.O. " " 28.0

1932 ♂ " " Testis ○ " " 33.6

1933 ♀ " " ovary  S.C.O. " " 26.6

1934 ♀ " " Ovary skull 90% " " 25.7

1935 ♂ " " Testis left ○ blackish white " " brown iris full 31.6

1936 ♂ " " Testis ○ gray white iris full 35.8

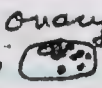
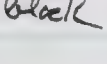
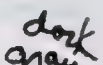
1937 ♂ Ortalis vetula Testis

R.K. Selander,
1954

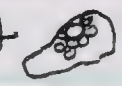
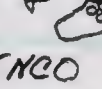
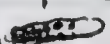
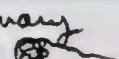
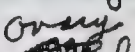
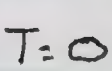
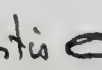
2 mi. SE Ocuilapa, Chiapas, Mexico
April 4, 1954

a pair { 1938 ♀ Campylorhynchus nigricandatus ovary full brown 24.8
1939 ♂ " " Testis full brown 29.0

Rancho Ocuilapa, 8.6 mi. SE Tonalá, Chis., Mexico
April 4, 1954

1940 ♀ Campylorhynchus ~~fus~~ nigricandatus x humilis ovary  not full iris brown 25.7
1941 ♀ " " S.C.O. " ovary iris full 25.6
1942 ♂ " " " Testis  black iris full brown 29.4
1943 Sex? " " " iris full 24.2
1944 ♂ " " " Testis  dark gray iris full 32.9
1945 ♂ " " " Testis iris full 31.5
1946 ♂ Euphonata Testis iris dark brown 62.8

April 5, 1954

1947 ♀ Campylorhynchus nigricandatus x humilis B ovary  full 25.1
Skin + partial skel 1948 ♂ " Paired with 4 " 5 T=  SNCO full 31.5
" 1949 ♂ " " " A T= full 29.0
" 1950 ♀ " " " ovary  S.C.O. full 24.7
" 1951 ♀ " " " C ovary  light full 27.5
" 1952 ♀ " " " B ovary full dull brown 24.7
" 1953 ♂ " " " A T= Left testis - 28.2
destroyed by ants 1954 ♀ " " " 8 ovary full 24.8
" 1955 ♀ " Paired with 3 " 2 ovary  brown full 24.4
" 1956 ♂ " " " C T=  full 31.3
1957 ♂ " " " 7 T= full 30.7
" 1958 ♂ " " " D T= full light 26.0
" 1959 ♂ " " " D T= full 28.3
1960 ♂ " " " A Testis  full 31.6

Rancho Ocuilapa, 8.6 mi. SE Tonalá, Chiapas, México

April 5, 1954

Skin + part skel	1961	♂?	Campylorhynchus nigricaudatus × humilis	3			full 28.8
"	1962	♂	"	"	"	S.C.O. 9 T=○	full 29.8
	1963	♀	"	"	"	4	dull brown 23.7
"	1964	♂	"	"	"	-T=●	full 26.7

Río Agua Dulce, 5 mi. SE Tonalá, Chis., México

April 7, 1954

	1965	♀	Campylorhynchus nigricaudatus × humilis	ovary			iris full 25.8
group	1966	♀	"	" ovary	"	SCO	iris full 26.0
group	1967	♂	"	" T=○	"	SCO	iris full 29.2
group	1968	♀	"	" ♂=	"	SCO	full brown 22.3
Skel.	1969	♂?	"	"	"		iris brown 26.6
air	1970	♂	"	"	"	T=○	full brown 24.1
air	1971	♀	"	" ♂=	"	SCO	full light 21.3
group	1972	♂?	"	"	"		iris full 29.5
group	1973	♂	"	"	"	T=○	full light 30.4
group	1974	sex?	"	"	"		full brown 27.9
	1975	♀	"	" ♂=	"	SCO	full 22.0
group	1976	♂	"	" T=○	"	SCO	full 29.6
group	1977	♀	"	"	"	Ovary	full light dull 25.1
air	1978	♂?	"	"	"	S.C.O.	iris full 26.9
air	1979	♀	"	"	"	ovary	iris full 24.7
pair	1980	♀	"	"	"	○○ ovary	full light 23.1
Skel	1981	♂	"	" nigricaudatus mostly	"	T=○	iris full 33.8
air	1982	♂	"	" T=○	"	S.C.O	full dull 31.2
air	1983	♂	"	" T= ROW LOB	"		full light 32.1

R. K. Selander,
1954

Río Agua Dulce, 5 mi. SE Tonalá, Chis., México
April 7, 1954

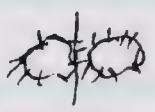
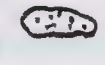
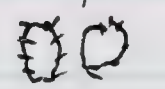
skel. saw	1984	♂?	C. nigricandatus x humilis		iris full 30.1
	1985	♀	"	" ovary	"		full light 24.9
saw	1986	♀	"	" ovary	"	S.C.O.	iris full 25.8
saw	1987	♂	"	" T: R=O W L=O B	"		iris full 31.2
saw	1988	♀	"	"	"	ovary	iris full 24.4
saw	1989	♂?	"	"	"	SCO	iris full 30.0
	- 1990	♂	C. chiapensis	[Specimen not saved]			iris full light 48.7
	1991	♀	Morococcyx erythropygus	Skull only partly ossified	Brood patch/ ovary		67.0

Río Rosario,
9 mi. NW Tonalá, Chiapas, México
April 8, 1954

1992	♂	Campylorhynchus humilis	T=O		iris brown	27.0
1993	♀	"	"	S.C.O.	ovary iris full	24.3
1994	♂	"	Testis O	"	SCO	full reddish brown	31.6
1995	♂	"		"	Testis O		25.6
1996	♂	"	Testis O	"		iris full (dull?) SCO	27.1
1997	♂	"	Testis o	"		iris full	27.3
1998	♀	"	ovary	"		iris brown	23.3
1999	♀	"	ovary	"		brown dull	23.0
2000	♀	"	ovary	"		full brown	21.2
2001	♂	"		"	SCO	T: O	27.1
2002	♀	"		"		iris full ovary	23.2

Río Tilteper, 4.9 mi. NW Tonalá, Chis., México

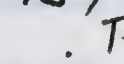
April 10, 1954

2003	♀	Campylorhynchus humilis	ovary		iris full-orange brown		23.9
2004	♀	"	ovary	SCO	"	"	22.3
2005	♂	"	T=O	OO	"	"	27.6
2006	♂?	"	"	"	"	orange brown	26.4
2007	♀	"	ovary	SCO	"	"	24.3
2008	♀	"	ovary	SCO	"	iris dark orange brown	~~20.5~~ 22.1
2009	♀	"	ovary	SCO	"	iris light orange brown	~~22.1~~ ~~20.5~~
2010	♂	"	T=O	SCO	"	orange brown full	25.7
2011	♂?	"		SCO	"	light reddish brown	27.8
2012	♂	T=O		OO	chiapensis	iris full	53.0
2013	♀	"			" ovary 	iris full	44.4
2014	♂	"		T=O		iris full dull brown	50.3

Sent to A.M.N.H.

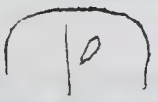
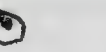
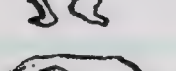
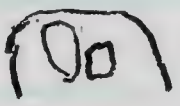
1.3 mi. NW Tonalá, Chiapas, México

April 10, 1954

2015	♂	Campylorhynchus chiapensis		Testis 	SCO	iris full-light	51.4
2016	♀	"	ovary	"	OO	iris full light	43.1

½ mi. SW road on Río Agua Dulce, 5 mi. SE Tonalá, Chis., Mex.

April 11, 1954

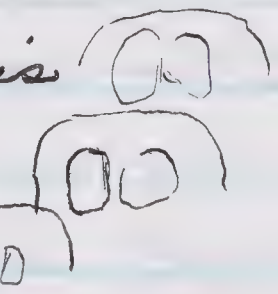
pair	2017	♀	Campy. nigricandatus	ovary	SCO	iris full reddish brown	26.2
	2018	♂	Campy. nigricandatus	OO	T=O	" " " "	29.5
pair	2019	♀	"	"		ovary  iris full intermediate?	22.4
	2020	♂	"	T=O "		iris brown	27.0
	2021	♂	"	"		" "	26.1
	2022	♀	"	chiapensis		S.C.O.	43.0

5 mi. SE Tonalá, Chiapas, México
April 11, 1954

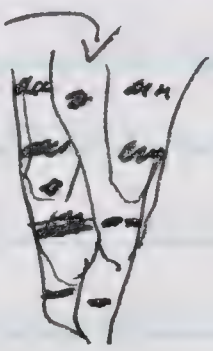
2023 ♀ Falco

near Quetzalapa, mi. S Tonalá, Chis, Mexico.
April 12, 1954

lch. * 2024 ♂ Campylorhynchus nigricaudatus xhumilis iris full orange brown 30.1
2025 ♀ " ovary S.C.O. " max color of nape " " " 24.3
2026 ♂ " T= chiapensis iris full 55.5
2027 ♀ " ovary " iris dull 46.4
2028 ♀ " ovary " dimeln to back iris brown 39.8
alch. 2029 ♂ " 1st. year on plumage " iris full brown 58.0a



* Tail black with broad dirty white bars. Back good intermediate. Head intermediate. Post ocular stripe mixed brown and black. No malar stripe. Under tail coverts distinctly barred. Much white in tail.



R. K. Selander, 1954

Río Tiltepec, 4.4 mi. NW Tonalá, Chis., Mexico

April 14, 1954

Kel. 2030	♂	Campylorhynchus	chiapensis.	Prim. coverts adult? Testis			
Kel. 2031	♂	"	humilis	Prim. coverts adult			
2032	♀	"	ovary	"	SCO	iris full brown	22.8
2033	♀	"	ovary	"	SCO	iris full reddish brown	21.8
2034	♂	"	T=	"	SCO	" " " "	26.4
2035	♀	"	ovary	"			23.3
2036	♀	ovary	"	"		iris brown - about same as nape color	23.8
2037	♀	ovary	"	"		iris orange brown - full	21.5

9 mi. NW Tonalá, Chiapas, México

April 14, 1954

2038	♀	Campylorhynchus	humilis	ovary		iris full - little red	22.7
2039	♀	ovary	"	OB	"	iris full - brown but a little red	22.5
See note in songs 2040	♂		T=O	OB	"	iris dull brown	23.6

14.3 mi. NW Tonalá, Chiapas, México

April 14, 1954

2041	♂	Campylorhynchus	humilis	SCO	T=O		27.7
2042	♂	"	T=O			iris full reddish brown	27.0
2043	♀	"	ovary	SCO	"	iris full brown & little red - dull	24.2
2044	♂	"	T=O		"	iris full reddish brown	26.9
2045	♂	"	T=O		"	iris full reddish brown	25.6
2046	♂	"		SCO T=O	"	" " " "	29.2
2047	♂	"		T=Left, R+O	"	" " "	26.3
2048	♂	"	Skull similar to #2041	T=O		iris full reddish brown	29.3
2049	♀		just finished ossification	ovary		iris full brown - brick red	23.3

6 mi. SE ~~SE~~ San Cristóbal, 7300 ft., Chis., México

April 18, 1954

2050 ♀ Xiphorhynchus promerops picirhynchus — oviduct enlarged, Brood-patch — 54.5

2051 ♂ Cyanocitta stelleri — SK. ad. — Testis Rt ○ Left ○ — 103.2

2052 ♂ Pipilo erythrophthalmus — Testis (10 mm.) — SK. ad. — 46.4

2053 ♂ " " — Testis (10) — SK. ad. — 44.0

2054 ♂ Turdus rufitorques — Testis 13-15 mm.

2055 ♂ " — Testis 13-15 mm.

Skel. 2056 ♂ Iunco phaeonotus — Testis ○

2057 ♀ Aphelocoma unicolor — 3 corpora lutea - oviduct enlarged, Brood-patch — SK. ad. — 121.0 gm.

2058 ♀ " " — SK. ad. — No Brood-patch — ovary ○○ Oviduct not enl. — 110.3

2059 ♂ Hylocichla guttata — Testis ●

16 mi. SE San Cristóbal, 7200 ft., Chis., México

April 19, 1954

2060 ♀ Campylorhynchus zonatus — SCO — ovary ○○ — Legs & feet horn yellow, No CL — iris full red brown — 31.7

pair { 2061 ♂ " " — T= ○ — " " " " — 36.7

pair { 2062 ♀ " " — ovary same as 2060 — iris lighter brown — 30.8

2063 ♀ Lepidocolaptes affinis — Brood-patch CL — 32.0

2064 ♀ Caprimulgus — (with two nestlings) - Brood-patch.

2065 ♂ Icterus chrysater? — Testis 12 mm. — 55.8

alch. 2066 ♂ Troglodytes musculus — iris dull olive-brown — 11.0 gm.

" 2067 Caprimulgus } nestlings of # 2064

" 2068 Caprimulgus }

April 20, 1954

2069 ♂ Campylorhynchus zonatus — SCO — T= ○ — Feet & legs horn yellow, iris full red-brown — 36.7

2070 ♀ Caprimulgus carolinensis — ovary ○○ — No brood-patch — 117.9

2071 ♂ Setophaga picta — Testis= ○ — 9.6 gm.

2072 ♂ Chordeiles acutipennis — T= ○ — fat — 61.7

R. K. Selander, 1954

9 mi. SE San Cristóbal, 7300 ft., Chis., México

April 21, 1954

2073	♀	Campylorhynchus zonatus	Brood-patch SCO	ovary at least 1 CL	iris full red br. 36.4
2074	♂	" "	Testis		iris brown yellow ring 32.6
2075	♀	Cyanocitta stelleri	Brood-patch	4 CL	98.7
2076	♀	" "	ovary	No CL	108.5
2077	♂	" "	Testis		102.0
2078	♂	" "	Testis		94.0
2079	♀	" "	Brood-patch		102.4
2080	♂	Zonotrichia capensis	Testis		21.3
2081	♂	Sialia sialis	Testis		31.7
2082	♀	" "	Brood-patch	SCO	32.8
2083	♂	Blue Mockingbird	Testis		iris red 62.6

April 22, 1954

✓ 2084	♀	Campylorhynchus zonatus	ovary	No B.P. No C.L.?	orange-br. iris not full 33.6
✓ 2085	♂	" T=	"		red-brown - full?, 36.9
✓ 2086	♂	" T=	" SCO		iris red-brown full 37.6
✓ 2087	♀	" No B.P. ovary	"		same as #2088 31.5
✓ 2088	♀	" oviduct Not enl. ovary	" SCO?	B.P. - not complete?	orange brown, not full 31.1
✓ 2089	♀	"	" ovary	No B.P.	Same as #2090 32.1
✓ 2090	♂	" T=	" S.C.O.		red-brown ~ full?. 35.1
✓ 2091	♂	"	" T=		orange - not full 35.0
✓ 2092	♂	" ~~Brood patch~~	" T=		orange brown not full 32.6
✓ 2093	♂	" T= greenish	"		grey-green c̄ incomp. pale brown ring 33.8
✓ 2094	♀	" ovary	No B.P.		orange not full 34.7
? skel. ~~2095~~	♀	" ~~covert new~~	"		~~orange brown not full 35.6~~
✓ 2096	♂	" T=	"		brown 34.3
✓ 2097	♂	" Testis	"		Gray with small pale br. ring 35.2

R. K. Selander,
1954

9 mi. SE San Cristóbal, 7300 ft., Chiapas, México

April 22, 1954

skel. 2098 ♂ Campylorhynchus zonatus T= covets new light brown not full 38.0

alc. 2099 ♀? " " pale brown 35.2

2100 ♀ " ovary " orange not full 35.7

~~skel. 2101~~ Specimen lost, ~~♂~~ " T= " [covets new wing saved] ~~iris not full 37.5~~

eggs 2102 " Set of 2 eggs found in nest with Nos. 2103-2105.

alc. 2103 " " (nestling) 23.7

" 2104 " " " 22.9

" 2105 " " " 24.8

Rancho Santa Julia, 2500 ft., near Ocosocoautla, Chiapas, México

April 24, 1954

2106 ♂ Muscivora tyrannus Brood-patch! Testis

2107 ♀ Elaenia flavogaster ovary

.5 mi. N San Fernando, 2000 ft., Chiapas, México

April 25, 1954

2108 ♀ Campylorhynchus zonatus color of feet + legs same as belly; egg in oviduct; iris full reddish brown; 3 C.L.; sco B.P.; some fat 42.0

2109 ♂ Saltator atriceps iris reddish brown; partial B.P.? Testis 14 mm. 84.3

2110 ♂ Saltator caerulescens Testis iris dull brown 60.0

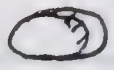
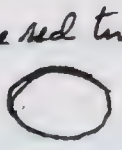
Mexican overment 2111 ♂ Thraupis abbas Testis 42.4

2112 ♂ Contopus Testis ○ 13.7

2113 ♂ Oporornis tolmiei Testis ○

R. K. Selander,
1954

6 mi. NNW San Fernando, 3000 ft., Chiapas, Mexico
April 26, 1954

2114	♀?	Hummingbird	Brood-patch		
2115	♀	Chlorospingus opthalmicus	ovary	iris dull brown	
2116	♂	Automolus ochrolaemus	Testis		
2117	♂	Myioborus miniatus	Testis 	ovary	No B.P.??
2118	♀	Campylorhynchus zonatus	SCO	full red brown	35.2
✓ 2119	♂	"	T=	" iris dirty white ⊂ hint of brown	39.7
2120	♀	"	ovary oviduct N.E.	No B.P. iris very pale brown SCO	34.4
group ✓ 2121	♂	"	T=	" iris? SCO	40.0
✓ 2122	♂	"		iris very pale brown, SCO T=	37.2
2123	♀	"	ovary	oviduct NE No. B.P. iris fule brown with some red tint SCO	36.0
2123	♂	Hirundo rufescens	Testis 		41.8
2124	♀	Chlorospingus opthalmicus	ovary		16.6
2125	♂	Sittasomus griseicapillus	Testis		14.6
Mexican government 2126	♂	Turdus grayi	Testis		73.1
2127		Myiozetetes similis			39.1
2128	♀	Calocitta formosa	ovary		178.0

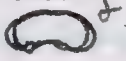
5.4 mi. NW San Fernando, 2000 ft., Chiapas, México

April 28, 1954

2129. ♀ Psilorhinus mexicanus feet, legs, bill yellow ovary 2CL Brood. patch

2130. ♂ Xanthoura yncas Testis iris yellow

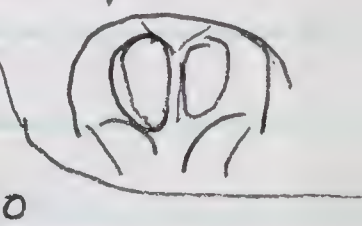
2131. ♂ Campylorhynchus zonatus T= iris full reddish brown SCO

2132. ♂ " " iris dirty white with hint of brown Testis 

2133. ♀ " iris not full SCO

2134. ♂ " " iris brown, not quite full SCO

2135. ♂ " under-tail-coverts banded" SCO Testis



Río Florida, 1500 ft., 9 mi. NW San Fernando, Chia., Mexico

April 29, 1954

2136. ♀ Calocitta formosa SCO

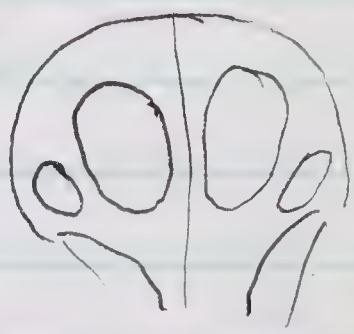
2137. ♀ " " SCO

2138. ♂ " " SCO Testis 15 mm.

2139. ♂ " " Testis 2139 Skull →

2140. ♀ " " ovary

2141. ♀? " "



5.4 mi. NW San Fernando, 2000 ft., Chiapas, México

April 29, 1954

2142. ♂ Campylorhynchus zonatus iris dirty brownish white SCO Testis 37.6 gm.

2143. ♂ Psilorhinus mexicanus soft part colors same as 2129 Testis 12 mm. 253.8 gm.

2144. ♂ Saltator maximus Testis

2145. ♂ Saltator atriceps Testis 12 mm.

Río Ostuta, 6 mi. W Zanatepec, Oaxaca, México

May 1, 1954

2146 ♂ Campylorhynchus humilis iris full SCO Testis small ○?? 25.9

2147 ♀ " No B.P. Ovary & O.D. " " "

~~21~~

10 mi. NW Tapanatepec, Oaxaca, México

May 1, 1954

skel. 2148 ♀ Calocitta formosa oviduct with an egg. B. Patch 204.4

skel. 2149 ♂ " " Testis 15 mm. 195.0

Río Ostuta, 6 mi. W Zanatepec, Oaxaca, México

May 2, 1954

2150 ♂ Campylorhynchus humilis legs & feet dull bluish slate-green cast iris brown full T= ○ gray 25.3

#3 2151 ♀ " ovary O.D. NE. " ossification complete - Probably just so Brood-patch started iris dark, rich brown full 23.2

2152 ♂ " " T= ○ iris light brown full SCO Feet, legs dull slate blue 26.9

#2 2153 ♂ " " iris dull reddish brown full T= ○ 23.5

#1 2154 ♀ " ovary " iris dull dark brown - full SCO 22.5

2155 ♂ " T= ○ ! " SCO iris full reddish br. 24.8

2156 ♂ " T= ○ " iris full reddish brown - a dull quality 27.6

2157 ♂ " T= ○ " fairly fat in interclavicular area X 29.1

2158 ♀ oviduct enlarg. 2CL? No B.P. " iris light brown-full " iris red-brown full a bit light 22.6

2159 ♂ " T= ○ " iris full - rich brown 25.3

2160 ♂ " T= Rt ○ Lft ○ " iris full reddish brown SCO 28.0

2161 ♂ Thryothorus pleurostictus Testis ○ 18.2

2162 ♂ " " Testis ○ 18.0

alch. 2163 Aimophila ruficauda iris dark, dull red. 40.9

alch. 2164 " " 39.4

2165 Myarchus 28.1

alch. 2166 Calocitta formosa —

R. K. Selander, 1954

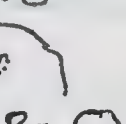
Rio Ostuta, 6 mi. W Zanatepec, Oaxaca, México

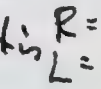
May 2, 1954

	2167	♀ Calocitta formosa	ovary = inactive	169.7
skel.	2168	♂ Thryothorus pleurostictus	T= ○	[illegible]

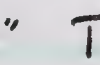
Río Guamol, 8 mi. E Niltepec, Oaxaca, México

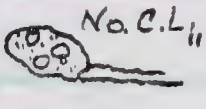
May 3, 1954

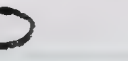


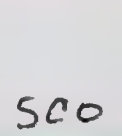


A	2169	♀ Campylorhynchus humilis	No C.L. ovary SCO except possibly for ○ on one side iris full orange brown	23.6
	2170	♂ " T= ○ "	iris full orange brown	24.8
B	2172	♂ " T= "	SCO iris full orange brown	26.2
	2173	♀ " ovary No C.L. "	No B.P. iris full rich orange brown	22.8
C	2174	♂ " T= gray "	iris full orange brown SCO	27.0
	2175	♀ " ovary "	iris dull brown-full SCO	22.0
D	2176	♀ " ovary "	iris full rich brown	23.1
skel. + wing	2177	♂ carrying nest material "	iris full orange brown Testis R= ○ L= gray green	26.5
	2178	♀ ovary " "	iris brown (full?) SCO	19.7
	2179	♂ " T= "	iris orange brown - rather light SCO	24.3
	2180	♂ " T= ○ "	iris dull brown - full SCO	27.7
	2181	♀ " ovary No. C.L. "	iris full brown - a bit orange SCO	22.2
	2182	♀ " ovary "	iris dull? SCO	22.3
	2183	♀ ovary "	iris dull brown coverts old? SCO	21.0
skel.	2184	♂ " T= L= R= "	iris rich brown full coverts old	26.0
"	2185	♂ " T= ○ "	iris orange brown full	26.0
	2186	♀ " ovary "	iris " " " SCO	23.8
skel. + wing	2187	♂ " "	coverts new T= ○	25.9
skel.	2188	♂ " T= L R ○ Blue gray " " " ?	iris brick red-brown full	25.4









Note: No brood-patch on any birds collected today.

6.5 mi. E Tequisistlan, 1000 ft., Oaxaca, México

May 4, 1954

pair { 2189 ♂ Campylorhynchus humilis T=O iris full orange brown 26.8
pair { 2190 ♀ " ovary " SCO 24.6

5 mi. E Tequisistlan, 1000 ft., Oaxaca, México

May 4, 1954

2191 ♂ Campylorhynchus humilis T=O iris full 28.6
2192 ♀ " ovary " SCO 23.1

May 5, 1954

pair { 2193 ♂ Campylorhynchus humilis T=O SCO Iris full brown 24.3
pair { 2194 ♀ " " SCO No. brood-patch ovary 19.7
pair { 2195 ♂ " " SCO T=O iris full reddish brown 24.8
pair { 2196 ♀ (!) " " SCO ovary 24.8

Camotlán, 5100 ft., 10 mi. NNE Huajuapan de León, Oaxaca, México.

May 6, 1954

2197 ♂ Pipilo rutilus iris pale brown SCO Tr ls 46.0

Km. 335, 9 mi NNW Huajuapan de León, 5500 ft., Oaxaca, México.

May 6, 1954

2198 ♀ Campylorhynchus jocosus iris full reddish brown 4 CL. brood-patch very full 30.0
2199 ♂ " T=R O L -gray " No. CL. 30.3
2200 ♀ " brood-patch developing Skull Crushed - lost large unoss. areas 27.9
2201 ♂ " T=O " iris lt. clull brown SCO except 27.1

R.K. Selander, 1954

Km. 334, 9.5 mi. NNW Huajuapan de León, 5500 ft., Oaxaca, México May 8, 1954

2202 4-Eggs of Campylorhynchus jocosus

2203 ♂ Campylorhynchus jocosus ○○ iris brown feet & legs slate T=○ 30.0

alch. 2204 ♂? " iris brown feet & legs slate - tint of greenish 23.0

Tepenené, 4600 ft., Puebla, México May 8, 1954

pair { 2205 ♀ Campylorhynchus jocosus SCO Feet & legs gray slate No B.P. ovary ○ No.C.L. 27.4

2206 ♂ " T=○ " gray green slate legs & feet iris plain brown - pale Not full 29.9

pair { 2207 ♂ " T=○ " iris plain brown ○○ 30.4

2208 ♀ 3C.L. " Brood-patch " skull about same as 2206 28.1

skel. 2209 ♂ " T= R ○ L ▨ " iris brown 28.0

2210 ♂ ground cuckoo Brood-patch! T=○ Molting 53.1

Chietla, 4400 ft., Puebla, México - May 9, 1954

2211 ♀ Thryothorus pleurostictus ~~SCO~~ iris SCO brown 16.1

2212 ♀ " ovary ○ " No.C.L. SCO legs & feet dull flesh color 15.9

Km. 193, 4 mi. N Izúcar de Matamoros, 4300 ft., Puebla, México. May 9, 1954

2213 ♂ Thryothorus felix SCO Testis ○ iris reddish brown 16.3

2214 ♀ " Partial ~~ovulated~~ Brood-patch O.D. enl. ova ○○○ SCO legs and feet dark slate 15.5

skel. 2215 ♂ Aimophila humeralis Testis ○

2 mi. S Izúcar de Matamoros, 4350 ft., Puebla, México

skel. 2216 ♂ Campylorhynchus jocosus T= L ○ R ○ Converts old Int 29.9

2217 ♀ " 4C.L. " Brood-patch iris brown SCO 29.2

R. K. Selander, 1954

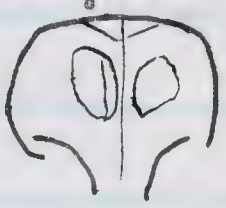
Barranca de Metlac, 3250 ft., 3 Km. N [=NW] Fortín, Veracruz, México. May 11, 1954

2218 ♂ Campylorhynchus zonatus legs & feet straw yellow iris orange brown with a gray ring. SCO T= ○ 33.8

2219 ♀ " Brood-patch developing No C.L. ova " iris deep brown c ring of pale brown. Molting on back No CL? 29.5

2220 ♀ Psilorhinus morio iris brown - Brood-patch ova 265.3

2221 ♂ Campylorhynchus zonatus Feet and legs straw yellow 32.6



Testis ○

2 mi. N Fortín, 3200 ft., Veracruz, México

May 12, 1954

2222 ♂ Campylorhynchus zonatus Testis ○ SCO Feet & legs pale yellow buff iris orange brown - not full 33.6

2223 ♀ 2 C.L. " Brood-patch - yolk in oviduct " SCO Feet & legs straw yellow iris reddish brown full 35.3

2224 ♂ Saltator atriceps ~~Feet~~ T=13mm. iris dark brown 85.2

2225 ♀ " Brood-patch - not watery iris rich dark brown ova No C.L. 85.5

2226 ♂ Xanthoura yncas iris yellow Testis ○ 84.1

2227 ♀ Glaucidium brasilianum iris yellow Brood-patch 78.1

2228 ♂ Psilorhinus morio iris dark brownish black T=15mm. 258.2

Barranca de Metlac, 3250 ft., 3 Km. NW Fortín, Veracruz, México.

May 12, 1954

2229 ♀ Campylorhynchus zonatus iris orange br. - full SCO ovary : inactive No Brood-patch 29.8

2230 ♂ T= ○ " legs & feet straw yellow iris orange brown full 33.9

R.K. Selander, 1954

4 mi. W Fortín, 3400 ft., Veracruz, México.

May 13, 1954

pair	2231	♂	Campylorhynchus zonatus SCO	T= ○ iris reddish brown (light color)	36.1
pair	2232	♀	SCO " Brood-patch-full "	ovary small iris orange-brown not full	33.8
pair	2233	♀	ovary " No B. Patch "	iris orange-brown-full-light	32.6
pair	2234	♂	T= ○ " SCO "	iris dark orange-brown-full?	33.1
	2235	♂	Aimophila rufescens	Testis ○	37.9

7 Km. NW Fortín, 3200 ft., Veracruz, México

May 13, 1954

	2236	♂	Campylorhynchus zonatus SCO	T= ○ iris orange-brown not full	33.7
	2237	♀	SCO " Molting on head & elsewhere "	ovary inactive iris dark orange brown Not full?	32.7
	2238	♀	ovary inactive "	iris dark orange or reddish brown Not full	29.7
	2239	♀	" ovary No C.L. "	Brood-patch - not complete iris full orange brown-dark	36.7
	2240	♂	" T= ○ "	iris same as #2239 SCO	35.1

May 14, 1954

	2241	♂	Campylorhynchus zonatus T= ○	iris dirty white or bluish with a pale incompl. brown ring.	34.7
skel.	2242	♀	" Partial brood-patch "	ovary No. C.L. Coverts new	33.4
	2243	♀	" Complete egg in oviduct SCO	4 C.L. 2 yolks in ovary & duct ○ ○	34.3
	2244	♀	Fat-intercolonicular SCO B.P. full	iris full reddish brown-brick	36.3
skel.	2245	♂	" "	coverts new	34.2
	2246	♀	ova " No C.L. " (Not compl. Brood patch)	iris light orange brown	32.2

Note: Feet & legs of all wren straw-yellow with some variation i.e. Nos. 2231, 2233 are darker than Nos. 2237-2239. No. 2239 is somewhat buffy.

R. K. Selander, 1954

7 Km. NW Fortín, 3300 ft., Veracruz, México

May 15, 1954

Notting on neck

T= SCO - but poorly on right side legs & feet straw yellow

pair { 2247 ♂ Campylorhynchus zonatus iris reddish brown c̄ dirty white or buff ring 35.7

2248 ♂ " T= SCO " iris reddish brown - not full 33.9

Feet & legs dull - slightly greenish

pair ? { 2250 ♀ oviducts " SCO = inactive ?" Slight brood-patch development ? 29.8

2251 ♂ SCO " T= " iris reddish brown with dark buff, outer ring 37.0

2252 ♂ T= " " " " " " " 36.2

SCO No. B.P. " legs & feet fleshy buff

2253 ♀ ovary " = inactive iris orange brown - not full dorsally. 29.7

2254 ♂ Xanthoura yncas T= iris yellow - legs & feet pale bluish slate. 86.2

2255 ♂ " T= " iris yellow legs & feet pale bluish slate. 88.2

Barranca de Metlac, 3250 ft., 3 Km. NW Fortín.

May 16, 1954

2256 Snake. on road

2257 ♂ Xanthoura yncas iris yellow Testis = greenish gray 80.7

2258 ♀ " " " " Brood-patch 1 C.L. Mod. fat oviduct enlarged 90.3

2259 ♂ " " " " Testis = buff 85.9

7 Km. NW Fortín, 3300 ft., Veracruz, México

May 16, 1954

SCO - Full Brood-patch Feet & legs straw yellow 3 C.L. oviduct not too angl.

2260 ♀ Campylorhynchus zonatus iris reddish brown - full 35.2

2261 ♂ " T= R L " iris reddish brown - full SCO 36.3

R. K. Selander, 1954

12 mi. SSW Boca del Río, 100 ft., Veracruz, México

May 18, 1954

alch.	2262	Thryothorus rutilis	iris dark brown; Feet & legs dull blueish slate about same color as C. rufinucha.	15.2 ~~39.5~~
	2263	*♂ Campylorhynchus zonatus	T= ◯ oil gland ~~iris full rich brown~~ Feet & legs straw yellow 5 Cl?	39.7
	2264	♀ "	iris full reddish brown Full brood-patch SCO	39.1
	2265	♂ "	iris full - color? " interclavicular fat T= ◯	36.9
	2266	♂ "	Testis ◯ iris brown - not full ~~Full brood patch~~	40.7
	2267	♂ "	Testis ◯ iris brown full	39.5
Pair	2268	♂ Campylorhynchus rufinucha	T= ◯ oil gland white iris full rich brown Feet & legs dull blueish slate	29.3
Pair	2269	♀ OD. enlg. 2 ova ◯ "	iris full dark rich brown lower mandible proximally light "horny" slate Brood-patch - not quite complete?	29.4
Pair	2270	♀ "	iris full rich brown " ovary ◯ Oviduct port. enlg. Partial B.P.	27.0
Pair	2271	♂ "	Testis ◯ " iris full rich brown	30.6
	2272	♂	Testis " ◯ = gray-green " iris full rich brown oviduct enlg. ova ◯ ~~No Cl~~ 2 Cl?	31.7
	2273	♀ ad	iris full reddish brown " - rather dull Full brood-patch	27.0
	2274	♀	ovary ◯ = inactive? No B.P. " iris full brown	24.4

May 19, 1954

	2275	♂ Uropsila leucogastra	Feet & legs flesh-slate iris ~~dark~~ dull brownish black T= ◯	9.7
	2276	♀ Ramphocaenus rufiventris	Brood-patch	15.0
	2277	♂ Campylorhynchus rufinucha	T= ◯ = gray greenish iris full reddish brown	30.3
	2278	♀ " "	Brood-patch 1 Cl. enlg. ova	29.0
	2279	♀ " ovary ◯ oviduct not enlg. zonatus	iris full pale brown	35.2
	2280	♂ " Testis ◯ "	" " " "	38.9
	2281	♀ " "	ovary inactive ◯	52.8
Mexican government	2282	♂ Platypsaris aglaiae	Testis ◯ Brood-patch	37.1
	2283	♀ Saltator atriceps	1 Cl. ova ◯	92.2
	2284	♀ Colinus virginianus	ovary ◯	146.0

* Left iris pale brown - very incompletely full
Rt. iris dirty blue-gray with a thin, pale inner ring of pale brown.

R. K. Selander, 1954

2 mi. N Tierra Blanca, 180 ft., Veracruz, México

May 21, 1954

pair { 2285 ♂ C. rufinucha T= ○ (testis sized) iris brown full 31.5

2286 ♀ " " iris brown full yolk in oviduct 3 cl. (one large one) 28.7

skel. 2287 ♀ C. zonatus ovary inactive? cover to new 33.7

skel. 2288 ♂ Uropsila leucogastra T= ○ Legs & feet dull flesh iris dark brown 10.0

1 mi. SSE La Tinaja, 200 ft., Veracruz, México - May 21

2289 ♂ Chordeiles minor Testis ○ 57.0

12 mi. SSW Boca del Río, 100 ft., Veracruz, México

May 21, 1954

2290 ♀ C. rufinucha Brood-patch "iris reddish" - prepared by C. Lamb

May 22, 1954

alch. 4 nestlings from one nest of pair 2295-2296 { 2291 C. rufinucha legs & feet light purplish gray iris blue gray - dull 11.9

2292 " " 11.0

2293 " " 11.5

2294 " " 9.0

skel. pair { 2295 ♂ " " covert, new T= ○ = 5.4 mm. Feet & legs light gray - blue slate full brood-patch iris reddish (brown) - full 32.0

2296 ♀ ad. " " × ovary iris same as 2295 24.2

skel. 2297 ♂ " " T= ○ iris reddish - full ovary 3 cl. 30.4

2298 ♀ " " full brood-patch SCO iris reddish brown full 28.6

2299 ♂ C. zonatus T= ○ SCO iris full orange brown 39.4

2300 ♀ " ovary inactive No B.P. iris reddish or orange brown - not full = with a light brown ring + a partial distinct white ring 32.6

2301 ♀ " " ovary inactive iris reddish brown - full partial brood-patch 31.4

alch. 2302 sex? Uropsila leucogastra iris dull dark brown 10.3 gm.

R. K. Selander, 1954

3 mi. SW Cosamaloapan, Veracruz, México

May 23, 1954

2303	♂	Synallaxis erythrothorax	Testis ○ (Sarcocystis)	iris dark brown	18.4
2304	♂	" "	Testis ○ (Sarcocystis)	" "	17.3

15 mi. SW Cosamaloapan, Veracruz, México

May 23, 1954

2305	♂	Uropsila leucogastra	Testis ○		10.0
2306	♂	Arremonops rufivirgatus	Testis ○	iris dark brown	30.9
group 2307	♂	Campylorhynchus zonatus	T=○ Not fat	iris brown with dirty white outer ring	35.8
group 2308	♂	T=○ "	" fat	same as 2307 pale brown	35.5
group 2309	♀	" ovary ⊙ (C.L. present = orange specks) SCO	" Not fat	iris pale orange brown not full	34.3
group 2310	♀	no B.P. " ovary inactive?	" fat	iris orange brown full	34.7
group 2311	♀	no B.P. " ovary inactive	"	same as 2310	32.6
group 2312	♀	" No B.P. ovary inactive SCO	fat "	iris dull brick red brown	33.2
group 2313	♂	" fat	Testis ○ "	iris orange brown full	39.5
group 2314	♂	" SCO	Testis ○ "	iris dull brick red brown	40.4

3.5 mi. W Ciudad Miguel Aleman, Veracruz, México

May 24, 1954

group 2315	♂	C. zonatus	SCO T=○	iris orange brown full	39.5
group 2316	♂	" "	T=○	same as 2315	36.9
group 2317	♀	" "	ovary ⊙ = inactive	iris very pale brown not full	31.7
group 2318	♀	" "	SCO ovary ⊙ No B.P. No C.L.	iris orange not full	33.2
group 2319	♀	" "	ovary inactive	iris very pale brown not full	32.1
group 2320	♂	" "	SCO T= R ○ (sones) L ⊙ = gray	iris orange brown ~~not~~ full	34.4
2321	♀	" "	ovary inactive	iris not full	28.6
2322	♂	Saltator caerulescens	Testis ○	iris dull brown	56.2

13 mi. N Ciudad Miguel Aleman, Veracruz, México

May 24, 1954

ne bird)	2323	♂	C. zonatus	SCO Testis ○	iris red not quite full	36.5
	2324	♂	Arremonops rufivirgatus	Testis ○	iris brown	28.2

5 mi. N Tehuacan, 1676 m., Puebla, México

May 26, 1954

	2325	♂	Thryomanes bewicki	SCO T=○	iris dull brown	12.3
alch.	2326	♀	" "	Brood-patch oil gland fat white	" " "	11.0
group	2327	♀	Campylorhynchus jocosus	Full brood-patch ovary ○ O.L.	Fat in interclavicula region rich brown full	26.9
	2328	♂	" T=○	" Fat on sides of breast & interclavicular area	" " "	29.5
	2329	♂	" Testis ○	"	brown with dirty white ring	27.2
	2330	♂	" Testis ○	"	brown not full	26.6
	2331	♀	" 3 Cl Egg in oviduct - "Full B.P.	"	rich brown full?	27.6
	2332	♂	" T= R ○ L ▨ gray	"	brown not full	27.9
skel	2333	♂	" Counts adult	" T= R ○ ▨ (same)	rich brown not quite full	30.2
skel	2334	♂	" Testis same as 2333		rich brown full	29.5
	2335	♂	" SCO	" T=○ egg in oviduct, 1 Cl.	dark orange brown full	27.9
	2336	♀	" Brood patch skeleton full		rich brown not full at top	32.1
	2337	♂	" Testis ○	" (same - breeding?) SCO	rich brown not full at top	30.6

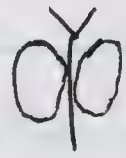
May 27, 1954

Building nest	2338	♂	C. jocosus	Feet & legs light dusty slate	T=○ rich brown full	28.9
	2339	♂	" "	T=○	brown not full	26.6
	2340	♀	" "	oviduct enlg. Brood-patch No C.L.?	rich brown full	30.1
	2341	♂	" "	T=○	" " "	28.5
group ?	2342	♂	" "	T=○	brown not quite full at top	30.6
alch.	2343	♂	" "	T=○	brown not full at Top	30.0
shucked from nest	2344	♀	" "	3 C.L. Brood-patch SCO	" " " " "	30.3

R. K. Selander, 1954

5 mi. N Tehuacán, 1676 m., Puebla, México

May 27

2345 ♂ C. jocosus T= ⬭ iris brown, not full  29.2

2346 ♀ " " Fat 4 eggs in nest B.P. - iris brown - not full? 28.6

2347 4 eggs of C. jocosus # 2346 - Very slightly incubated.

El Puerto, ___ ft., top of Acultzingo grade, Veracruz, México.

May 28

2348 ♂ C. megalopterus nelsoni Testis R L ⬭ Feet and legs stram greenish yellow iris gray with partial very pale brown inner ring. 32.8

skel. 2349 ♂ " " T= ⬭ " iris very pale orange 31.8

skel. 2350 ♀ " " ovary ⬭ " " " " 31.0

2351 ♂ Cyanocitta stelleri T= ⬭ 100.0

2352 ♂ " " Testis ⬭ SCO 97.0

~~2353 destroyed " 98.1~~

2354 ♀ Atlapetes pilatus 21.8

El Mogote, ___ ft., Guerrero, México

May 31, 1954

2355 ♀ Aimophila humeralis SNCO ovary ⬭ = No C.L. inactive

2356 ♂ " " T= ⬭

2357 ♀ Icterus pustulatus Brood-patch - laying

June 1, 1954

2358 ♂ C. jocosus SCO T= ⬭ legs & feet horn iris dark orange brown - full 29.0

2359 ♂ Melozone Kieneri SNO T= ⬭ iris brown 32.8

2360 ♂ " " SCO T= ⬭ " 35.0

2361 ♂ Thryothorus pleurostictus SCO T= ⬭ Full brood-patch! iris brown (dull) 20.0

2362 ♂ " felix T= ⬭ iris orange brown 16.6

1 mi. W El Mogote, ft., Guerrero, México
June 2, 1954

2363 ♀ Aechmolophus — Brood patch one (8)
2364 ♂ Melozone Kieneri SNO Testis ○ = blackish
2365 ♀? Elainia viridicata brood-patch

1 mi. ENE Villa Guerrero, 2520 m., México, México
June 2, 1954

2366 ♂ Catharus T= ⬭
2367 ♂ Ptilogonys cinereus SNO T= (8) R (8) L

1 mi. E Temascaltepec, 5700 ft., México, México
June 3, 1954

2368 ♂ Thryomanes bewickii T=○
2369 ♀ Catherpes mexicanus Brood-patch
2370 ♂ Turdus assimilis T=15mm.
2371 ♂ Myadestes obscurus T=10 mm.
2372 ♂ Melanotis caerulescens T=10 mm.
2373 ♀ " " Brood-patch
2374 ♂ Melozone Kieneri T= ⬭

Volcán de Toluca, 9000 ft., 15 mi. SW Toluca, México, Mexico
June 4, 1954

2375 ♂ Troglodytes brunneicollis Iris dull brown SCO T=○ 13.6
2376 ♀ jv. " " SND 13.6
2377 ♀ jv. " " 12.3
2378 ♀ jv. " " 12.3
2379 ♂ jv. " " 13.0
2380 ♂ jv. " " 13.5

Volcan de Toluca, 9000 ft., 15 mi. SW Toluca, México, México
June 4, 1954

2381 ♂ jv. Catharus 24.4
Mexican government 2382 ♂ Turdus migratorius Testis 14 mm. 71.7

Tuxpan, ___ ft., Michoacan, México
June 5, 1954

Mexican government 2383 ♂ Pipilo fuscus T= ◯ 43.5

3.5 mi. NW Tzitzio, 6000 ft., Michoacán, México = 6500 ft acc. to Davis
June 6

√ 2384 ♂ C. gularis SCO T= ◯ iris reddish brown full 27.7
√ 2385 ♀ " " SCO ovary old brood-patch not too edematous " " " " 27.0
2386 ♀ Melozone Kieneri Brood-patch CL-present 36.3
2387 ♂ Dendrocopos stricklandi SNO T= 0 31.0
old. 2388 sex? jv Thryomanes heiwinkii 11.6
Mexican government 2389 ♂ Myiarchus T= ◯ tuberculifer querulus 18.5
2390 ♀ Panyptila sancti-hieronymi Brood-patch almost complete ovary No. C.L. oviduct not enlg. 49.3

1 mi. NW Tzitzio, 5900 ft., Michoacan, México
June 7

√ 2391 ♂ C. gularis T= ◯ Feet a legs, lead slate with purplish cast SCO 30.1 iris rich brown not full at top
√ 2392 ♂ " " T= ◯ 32.0 iris reddish br. full
√ 2393 ♀ " " old? brood-patch ova " " " 30.9
√ 2394 ♂ jv. " " iris blue gray-light - "mouth" yellow Legs more lead colored - more pigment - less neutral 30.7
2395 ♀ Aimophila ruficauda 25.0
Mexican government 2396 ♀ Melanerpes formicivorus iris dirty white egg in oviduct + brood-patch 75.8

1 Km. W Puerto Garnica, 8500 ft., Michoacán, México

June 8, 1954

ad pl. ✓	2397	♂ Campylorhynchus megalopterus T=○	legs & feet very pale straw yellow iris orange br. not full at top	33.6
ad pl. ✓	2398	♂ " T=○ "	oil gland yellow iris orange brown - full	36.0
ad pl. ✓	2399	♀ fat " yolk in ovary ○○ "	oviduct enlg. Brood-patch	34.9
✓	2400	♂ " T=○ "	iris pale orange br. - full	35.1
✓	2401	♂ " T=○ (prim. molting) "	iris very-very pale br. inner incomp. ring + blue gray outer	31.6
✓	2402	♀ ovary No B.P. (" ") "	iris orange brown - not quite full at top	29.1
✓	2403	♂ " SCO T=○ "	iris orange brown - full at top?	34.5
✓	2404	♂ " T=○ prim. molting " "	iris pale orange brown - not quite full outer ring - nor at top	34.3
	2405	♀ jv. Troglodytes brunneicollis	SNO iris dark brown	13.4
	2406	♀ " "	" " " Feet & legs fleshy color	12.7
	2407	♀ jv. " "	" " "	13.4
Mexican government	2408	♂ Piranga flava T=○	iris dark brown	37.4
	2409	♂ Troglodytes brunneicollis	thin T=○	
	2410	♀ ? jv. Caprimulgid		
	2411	sex ? jv. "		
	2412	♀ jv. Troglodytes brunneicollis		

June 9, 1954

	2413	♂ ? jv. C. megalopterus	iris blue-gray	30.4
	2414	sex ? jv. " "	" " "	32.5
group	2415	♀ " ovary " = inactive wingmolt	iris brown not full at top or outer ring	30.3
	2416	♂ " SCO " T=○ "	orange brown - not full at top	34.2
	2417	♀ " SCO " Brood-patch ovary	C.L. present full	34.0
	2418	♂ " T=○ " " " " "		34.6
	2419	♀ " "	ovary inactive No B.P. iris pale orange brown - not full	30.9
	2420	♀ " "	ovary inactive ? No B.P. wingmolt iris orange brown - full SCO	31.3

1 Km. W Puerto Garnica, 00 ft., Michoacán, México.

June 9, 1954

2421	♀ jv.	C. megalopterus	No ossification vis blue gray = Test x legs duller - less yellow than "adults"	27.2
2422	♂ jv.	" T= ⊖ "	lower mand. black c̄ yellow tip " "	29.5
2423	♀	" onary ⊖ "	inactive? No B.P. Not molting vis orange-brown - not quite full	31.7
2424	♀	" "	Fat onary inactive full?	31.9
2425		Lizard	- collected by boy around a native cabin.	
2426		"	" " " "	
2427		"	" " " "	
2428		"	" " " "	
2429		"	" " " "	

group

June 10, 1954

2430	♂ jv.	C. megalopterus T=o SNO	iris blue gray	31.5
2431	♂	" " T=o	very pale brown incomplete	32.4
2432	♀	" " onary ⊖ : inactive No B.P.	" " "	30.9
2433	♀	" " " " " " "	pale brown not full at top	31.5
2434	♂	" " T= ⬭	iris orange brown full	34.0
2435	♀	" " onary as in # 2432	" " " not full	30.5
2436	♂	" T= ⬭	" " " full	35.0
2437	♂	Cyanocitta stelleri T= ⬭ SNCO		107.6
2438	♀ jv.	Troglodytes brunneicollis SNO		12.8
2439	♂	" " SCO T= ⬭		13.0
2440	♀	Pipilo Brood-patch	Onary ⊖ + 2 C.L.	51.3
2441	♀	Xiphorhynchus flavigaster SNCO		36.5

3 mi. S Tenango del Valle, 2600 m., México, México

June 14, 1954

2442	♂	Cypseloides niger	Testis	40.3
2443	♀	" "	ovary Brood-patch?	40.0
2444	♂	" "	T=	38.3
2445	♀	" "	Partial B. Patch ova No C.L.	39.0

2442
2443
2444 – larger unoss. areas
2445

15 mi. NNW Tacámbaro, 9000 ft., Michoacán, México

June 16, 1954

2446	♂ jv.?	C. megalopterus	iris blue gray No. ossification	28.2
2447	♂ jv.	"	SNO iris pale blue gray Feet and legs pale aline dull yellowish	29.9
2448	sex? jv.	"	iris pale blue-gray SNO	28.3
2449	♂ jv.	"	T= SNO iris same as above.	30.0
2450	♂	"	iris reddish brown-full T=	33.4
2451	♀	"	No. C.L. ovary = inactive No. Brood-patch dull dark orange-brown full?	29.7
2452	♀	"	ovary No. C.L. " iris orange-brown full – Brood-patch	29.7
2453	♀	"	ovary inactive iris dull reddish brown-full	28.0
2454	♂	"	T= " iris orange brown – outer ring not full	37.4
2455	♂	"	" T= Feet-legs: dull straw yellow a tint of green	30.8
2456	♂	"	" T=	31.8
2457	♂	Atlapetes pileatus	SCO. iris brown Testis =	22.0
2458	♂	Troglodytes brunneicollis	SCO T=	14.6

ramp

15 mi. NNW Tacámbaro, 9000 ft., Michoacán, México

June 17, 1954

skel.	2459	♂ C. megalopterus	T= ○ No molt Coverts adult iris dark brisk orange br. full onary ○	36.7
	2460	♀ Atlapetes virenticeps	Brood-patch C.L. present	36.5
	2461	♂ Pipilo ooci	T= ○ Parent of 2462	54.6
	2462	♀? jv. " "		51.0
	2463	♂ Troglodytes brunneicollis		13.9
	2464	♂ " "	T= ○	12.2
	2465	♂ Oriturus	T= ○	45.4
Mexican government	2466	♂ jv. Aphelocoma ultramarina		12-3.3

June 18, 1954

skel.	2467	♀ C. megalopterus	No. B.P.? onary ○	32.1
	2468	♀ " "	brood-patch onary ○ iris orange-br. full	33.2
	2469	♀ No B.P. Skull? Probably not much ons?	Feet & legs pale greenish straw yellow - almost horn color iris orange brown full onay ○ = mastine	30.1
	2470	♂ T= ○	iris pale orange brown - outer ring very pale	32.1
	2471	♂ jv. Cyanocitta stelleri	T= o Very slight ossification	95.6
	2472	♂ ad. " "	SCO T= ○	99.6
	2473	♀ jv. " "	onay ● Very slight ossification	97.4
Mexican government	2474	♂ Black-headed grosbeak	T= ○	43.2

5 mi. N Pátzcuaro, 7600 ft., Michoacán, México

June 18, 1954

	2475	♂ Melanotis caerulescens	T= ▨ = bluckish	64.5

2 mi. W Zacapu, 7000 ft., Michoacán, México

June 19, 1954

2476	♂ jv.	C. gularis	SNO iris blue gray	28.4
2477	♀ jv.	" "	" " " "	26.3
2478	♀ jv.	" "	" " " "	25.4
2479	♂? jv.	" "		28.6
2480	♀ jv.	" "		27.9
✓ 2481	♂	" "	T = ○ ⌒ | ⌒ not fully ovo?	25.7
✓ 2482	♂	" "	T = L: ⬭ R: ⬭ = blackish iris red-full SCO oil gland white	29.5
✓ 2483	♂	" "	Data as above, except Test is R: ○ L: ⬭ (both white)	28.2
✓ 2484	♀	" "	SCO iris red-full Brood-patch Much interclavicular fat ova? oviduct somewhat enlg.	27.6
✓ 2485	♀	" "	ovary small – Brood-patch SCO	27.0
✓ 2486	♂	" "	SCO T = ○ (mushy so size not too accurate)	31.2
group 2487	sex? jv.	" "	SNO iris blue gray	28.4
group ✓ 2488	♂	" "	T = ⬭ SCO	31.3
group ✓ 2489	♀	" "	iris reddish full SCO ovary yolk +2 fellicle sacs oviduct enlg. B.P.	32.1

12 mi. S Tepic, 3100 ft., Nayarit, México

June 21, 1954

2490	♀	Calocitta formosa	SCO ovary No C.L. Brood-patch not compl. oviduct enlg.	254.0
2491	♀	Xanthoura yncas	iris brown ovary No C.L. Brood-patch	96.4

7 mi. W Tepic, 3100 ft., Nayarit, México

June 21, 1954

2492	♂	Lophortyx douglasi	T = 10 mm.	184.7
2493	♀	Turdus	Brood-patch ova = just laying	69.7

JOURNAL

R. K. Selander,
1954

México

March 8 –

March 8 Salt Lake City, Utah to Vermillion Cliffs, Arizona. Left Salt Lake City at 10:00 A.M. in the Ford panel truck with Bonnie; drove thru Kanab, Kane County and then on to the Vermillion Cliffs where we camped just off the highway.

March 9 Continued south on Arizona highway 89 to near Flagstaff, then east thru Holbrook to a point about 5 mi. S Socorro, New Mexico, and camped just off the highway. Wind blowing from north or northwest most of the day.

March 10 Drove south to El Paso, arriving at 12:00. Bought 10 days Mexican car insurance, cotton for Chester Lamb, and several other items of equipment and then crossed border into Mexico at about 3:30 P.M. The Mexican Aduanal Office is now located in a new building on the right side of the road just beyond the bridge. No trouble in getting our gear thru customs. An American officer asked if we were carrying any guns but the Mexicans asked only where we were going. After crossing the border we drove on south to the Santa Rita Courts just north of Chihuahua (35 pesos for a double bed with shower). Between Ciudad Juarez and Chihuahua we encountered two checking stations as shown on the AAA. maps in the handbook. Strong westerly winds blowing all along the road to Chihuahua, especially bad in the region just south of Juarez.

March 11 Chihuahua To 4 mi. WSW Jimenez, Chih. Mexico.
Left the Santa Rita Courts at 8:00 and drove southeast to a point 16 mi. SE Chihuahua, 4800 ft., where I collected two Amphispiza bilineata from a small flock of 5 or 6. Wind was blowing rather hard so I decided against further collecting and we continued along the highway. At Delicias the bolt holding the fan to the motor block broke and we spent most of the afternoon at the Ford garage having this repaired. The charge was 54 pesos for labor and a new fan belt. At 4:00 P.M. we again started south and drove southeast thru Camargo. The area between Chihuahua and Camargo is probably unsuited for cactus wrens - just low scrubby bushes or farm land. About 5 mi. SSE Camargo a few fairly tall chollas appear, along with some thorny bush-trees. This habitat improves as you go south — we noted the first cactus wren nest about 10 mi. SSE of Camargo. Between 10 and 42 mi. SSE we counted about 15 nests placed either in cholla or in thorny bushes. Most of the nests were about 5 feet above the ground. None of 6 examined appeared to be occupied at present and we saw no birds. I found two nests placed about 5 feet above ground in bush which ~~was~~ was about 7 feet tall. There were no flowers or leaves on these bushes — they are not mesquite but the branches are

March 11 Camargo to 4 mi. WSW Jiminez, Chih., Mexico

lined with short thorns. One nest was large and well-constructed, with the "tunnel" bending at an angle as it left the main portion of the nest. The opening faced south. The other nest was smaller and lacked a "tunnel" for the most part. Another nest ~~was~~ in the same general area but in another bush (about 30 yds from the first) had the opening covered with twigs and apparently had not been occupied for some time. None of the nests showed any evidence of having been repaired lately — all of the material was dry and old.

From the number of nests seen from the road I would judge that there is a fair-sized population of cactus wrens nesting in the area — at least to a point about 10 mi. SSE Camargo. Cholla cactus is rather sparsely distributed but the thorny bush is fairly common and apparently serves well for nesting sites. The wind was blowing rather hard from the west — which may account for our not finding the birds — but I suspect that there are no wrens in the area at the present time. Near Jimenez we noted several nests in cholla. The habitat is similar to that 10-40 mi. SSE Camargo with perhaps more cholla.

We pulled off the highway at a point 4 mi. WSW Jimenez, 4500 ft., and made camp. Wind blowing hard and dusty.

March 12 4 mi. WSW Jimenez, Chih. to 5 mi. SE Nombre de Dios, 6200 ft., Durango, México. — Skinned two desert sparrows before breaking camp. Heard three or more cactus wrens calling around camp and saw several nests but no birds. Toxostoma curvirostre noted near camp. Apparently wrens are present in the area but wind causes them to keep out of sight. Continued on to Hidalgo de Parral where we had coffee. Between Hidalgo de Parral and El Entronque (or Zarca, 6068 ft., on road map of Texaco) there is no cactus wren habitat. A very dry region with low scrub vegetation in the lower parts and oaks (?) and junipers on the higher ground. As far in either direction from the road as I could see there was no vegetation suitable for wrens and there must be a considerable gap in the range here. At El Entronque the vegetation is similar to that at Jimenez with a few scattered challa and thorny bushes. South of there the road climbs into the hills where there is a good growth of ocotillo, yucca (large, tree-like), challa, and thorny bushes and bush-trees — all in all good cactus wren habitat. 12 mi. N by road from the point where the highway crosses the Río Nazas, ± 6000 ft., we stopped for lunch and took two color photos — one showing a tall yucca in flower and the other a close-up of a cactus wren nest in a challa. Heard wrens calling while we were eating.

March 12 North of the Río Nazas, Durango, México.

As I approached a cholla which held a single nest placed about 3½ feet above the ground I heard a cactus wren giving a soft gua-gua-gua-gua call. Very soft and sounded as if it came from a distance. The bird may have been in the nest but as I approached it hopped up on the top branch of the cholla where I shot it. No eggs in nest but it looked as if it had recently been built or repaired — lined with quail & thrasher feathers and cotton. (Several nest examined near Jimenez were lined with cotton and feathers — duck wing feathers in one case). The larger nests examined had tunnel entrances while the smaller and more poorly built nests lacked the tubular entrance portion. Several other nests placed in cholla near the one mentioned above — all within a circle with diameter 30-~~[illegible]~~ yds. All may have belonged to this one pair. While I was returning to the road I found another cactus wren about ~~[illegible]~~ 20 yds from the place where I collected the first. This one I also shot. It probably was the mate of the first. [No - since both were males, nos. 1734-35].

The trees along the Río Nazas were in leaf and from there south we noted an increase in the number of trees and bushes which were in leaf — a decided change from conditions farther north. All the area from El Entronque to Nombre de Dios is

5 mi. SE Nombre de Dios, ±6200 ft., Durango, México.

March 12 suitable for cactus wrens with especially good stands of large tuna cactus around Nombre de Dios. Much of the land adjacent to the road has been cleared for farming around Nombre de Dios but good stands of cactus remain on the lower slopes of the hills. Noted 10 or more Chordeiles acutipennis flying near the Río Mezquital at Nombre de Dios at about 6:30 P.M. Saw several shrikes (L. ludovicianus) north of Durango,

at 7:30 we pulled off the road and made camp in a clump of mesquite (2) trees about 5 mi. SE Nombre de Dios, ± 6200 ft. There is very little of the original vegetation remaining in the valley here — most of the area being in cultivation. The wind is blowing rather hard from the west.

March 13 Continued along highway to Irapuato, Guanajuato. Went to Chester Lamb's place but he was away, having left for Oaxaca. He left a note with his wife giving instructions for locating his camp near Tapanatepec, Oaxaca. We stayed the night at Lamb's. The Lamb's have rented the lower floor of their house to a Mr. Blandina and his wife. He is a "senator" from Guanajuato. Mrs. Lamb said that Chester still is in poor condition from his trouble this past fall.

March 14 Drove to Mexico City and took a room at the Waldorf Hotel (45 pesos). We drove thru Celaya, Queretaro,

Good C. brunneicapillus habitat stops just south of San Juan del Río — road then climbs through deciduous broad-leafed forest mixed with some pines which are similar to the yellow pine. Road continues along the edge of a valley then A Acambay, Pathe where the whole valley is farmed, although there are some good patches of tuna cactus (good-sized plants) on the hill sides. Some slopes here are covered with pine, others with deciduous trees and pine. 2 mi. N of Atlacomulco there is a slope of tuna cactus on the left hand side of the road and beyond this point there are other slopes of tuna cactus remaining. At a settlement somewhere near Jxtlahuaca I stopped and questioned some natives about the occurrence of C. brunneicapillus. ~~No one~~ I showed a specimen to several natives but all said it did not occur here. One person knew the species and told me that they occur in the lower country to the north (= Queretaro). Probably Acambay is near southern limit of distribution of C. brunneicapillus although the cactus formation occur farther south in the high Toluca Valley.

Irapuato, Guanajuato to Mexico, D.F.

March 14 San Juan del Rio; then south to Toluca and east to Mexico City. Road is in fair condition most of the distance but is bumpy in some spots.

March 15 Stayed in Hotel Waldorf (45 pesos) during the night of March 14. ~~Skinned~~ Prepared cactus wrens in hotel room. Up early and went over to the Instituto Biologia to see Martin del Campo but he was not there so I left a message. Had truck greased. Left Mexico City around noon and drove to Puebla. Cerro Matalcueyetl didn't look good for megalopterus habitat. The top several hundred or a thousand feet are bare rock and the lower slopes are farmed. Probably only a belt of pine forest between the farmed slopes and the rocky top portion. Without further evidence of a fir forest there I would not include that mountain within the range of C. megalopterus. We drove south through agricultural lands of the Puebla Valley. At Izucar de Matamoros (4349 on Texaco Map) begins a rich arid tropical forest of cactus and deciduous bushes and short trees. This forest is similar to that of the Rio Balsas of Guerrero. It continues to a point about 20 or 30 miles southeast of Acatlan (3980ft on Airline Map) where the road climbs into the higher mountains northwest of the Oaxaca Valley. Most of the trees are deciduous and at this season have no leaves. Atena cactus is abundant. Also common are a cardon cactus, large agave which

Puebla – Oaxaca Highway, Mexico

was in bloom, a candelabra cactus of huge size) a good-sized deciduous tree with white flowers in "puff-balls", some challa cactus (in Puebla only). At the Puebla-Oaxaca border this forest thins out and a fan-palm is the dominant plant. We stopped at a Mexican hotel in Acatlan for the night.

March 16 At a point ± 10 mi. SE Acatlan and at about the same elevation (9380 ft)[-2]: a flock of C. jocosus crossed the road in an area of good cactus forest (Picture of an agave in bloom taken here), after crossing the border the road climbs and winds through pine forest & oak-forest mixed with other broad-leafed trees, mostly deciduous. The cactus forest occurs locally on the lower slopes. On descending into the Oaxaca Valley the cactus forest is encountered again but is less well-developed that in southern Puebla. It continues ~~to~~ ~~east~~ almost to Tequisistlan but beyond (= East) of Nejapa cactus is less dominant as tall deciduous trees appear and the vegetation is much like that in the valley of Tuxtla Gutiérrez, Chiapas. After crossing the Rio Tehuantepec at Nejapa the road climbs through some more dry pine forest with the cactus forest on the drier slopes. As the road descends again we first noted parrots and Calonitta formosa. We pulled

Oaxaca, Mexico

March 16 off the road and camped at 6:00 P.M. at a point about 5 miles W Tequisistlan in a stand of cactus, thorn bush, and deciduous trees. Here we noted Centurus woodpeckers, a yellow-bellied trogon (-ps?), and a large flycatcher. No C. porosus seen or heard but the habitat would seem to me to be suitable. Skinned two Calocitta formosa which I shot 10 mi. W of Tequisistlan.

March 17 Group of 5 Calocitta formosa passed thru camp at 6:15 A.M. Parrots flying over just after 6:30. Doves of several type calling all around camp. No wren noises of any type heard early this morning.

Drove to a point 1.5 mi. NE Los Amates, 2600 ft., where we found Chester Lamb camped in a ~~gully~~ culvert at the edge of a stand of pines. Lamb has two Mexican helpers with him — one "Sedelio", whom he had two years ago. Lamb said he had seen cactus wrens here several years ago but later he said that he wasn't sure of this. I hunted around camp for 2 hours and took a Piranga flava, 3 Leptotila verreauxi, a Piranga ludoviciana, and 2 Thryothorus pleurostictus. I noted that Lamb had collected Xiphorhynchus flavigaster, Saltator atriceps, Turdus grayi, acorn-storing woodpecker. Saw one flock of about 5 Xanthoura yncas. Lamb has taken one Thryothorus felix here but I didn't find it in my hunting. Late in the afternoon I collected one Glaucidium which was called to attention

R. K. Selander, 1954

Birds collected or seen by Laura Selander at 1.5 mi. NE Los Amates, 2600 ft., Chis., Mexico March 14 – 19, 1954

Thryothorus pleurostictus
" modestus
Momotus mexicanus
Piaya cayana
Turdus grayi
Whip-poor-will
Hepatic tanager P. flava
Pteroglossus
Contopus pertinax
Acorn-storing woodpecker
Boat-billed flycatcher
Chipping sparrow M
Vireo - cassini ?
Amazilia verticalis
Glaucidium
Nyctibius griseus
Basileuterus caudatus
McGillivray's Warbler M
Empidonax sp. – albigularis
Tolmomyias sulphurescens
Polioptila sp.
Heliomaster
Leptotila verreauxi
Piranga ludoviciana M?
Xiphorhynchus flavigaster
Copper tanager
Saltator atriceps

Trogon violaceous
Aratinga holochlora
Centurus aurifrons
Piculus rubiginosus
Icterus pustulatus
Red-eyed cow-bird
Morococcyx erythropygus
Aimophila rufescens
Tanagra (gouldi ?)
Vireo gilvus M
Colinus virginianus
Xanthoura yncas

1.5 mi. NE Los Amates, 2600 ft., Chiapas, Mexico

March 17 by a hummingbird calling excitedly and flying repeatedly towards it as it sat perched in a small tree about 15 feet from the ground. At night we heard other small owls calling.

March 18 Bonnie & I drove into Tuxtla Gutiérrez to see M. Alvarez del Toro. He is not willing to go out in the field at this time so we made arrangements to hire Bonifacio and then left Tuxtla and drove back to Lamb's camp. Most of the trees around Tuxtla have shed their leaves but a few seem to be leafing out again. Nothing new at the Museo Zoologico since my visit in October, 1953, but Alvarez showed me a pigeon hawk he recently collected near his home and a strange little owl he took near Las Casas which we could not identify. We arrived back in camp at about 5:00 P.M. In the early evening I heard a Glaucidium calling near camp so I started answering the call and soon a small owl of this genus flew in and perched near me in a tree. After shooting this bird I continued calling — giving an imitation of the pygmy owl note — too - too - too - too - toot. I noticed a large owl-like bird fly in toward us and perch on a tree stump about 12 yards from our position. Just as I prepared to fire the bird flew from the perch toward us, then turned and returned to the same perch, where I shot it. It was a Nyctibius griseus.

1.5 mi. NE Los Amates, 2600 ft., Chiapas, México

March 18 The gizzard and gullet contained several large beetles and remains of other insects — apparently beetles. Lamb said that he has not taken this species at this locality.

March 19 Drove from camp to Tonalá. In Tonalá we learned that the Presidente — Juan Trinidad Lopez — is staying at his place at Puerta Arista. We drove 3½ mi. from Tonalá along the road to Puerta Arista and made camp near the road under a large mango tree. We noted a pair of C. chiapensis in the trees across the road from our camp. In ~~the~~ afternoon we drove to Puerta Arista and visited with the Presidente. Several hundred Mexicans are camped at Puerta Arista. We returned to camp just before dark. Lamb had collected on C. chiapensis, a lizard, an Aimophila ruficauda, and several other birds. Many ants and small ticks here around camp but few mosquitos. The roads are very dry and dusty. The Presidente told me that the past year has been unusually dry. All the rivers and streams are dry, including the large Rio Sanatenco near Tonalá. Noted Cassiculus melanicterus, Cassidix mexicanus, Amazona albifrons, Valatuira jacarina, black vulture, a caracara today on way to Puerta Arista. Also noted several Calocitta formosa along the road.

Birds collected & seen by Lamb & Selander, March 1954
Area around Tonalá, Chiapas

Campylorhynchus chiapensis
" humilis
Thryothorus modestus
" pleurostictus
*Chamaethlypis poliocephala
Platyrhynchus aglaiae
Tyrannus melancholicus
*Myiarchus tyrannulus
Empidonax sp.
*Amazilia rutila
Icterus gularis
Icterus spurius
* " pustulatus
Megarhynchus pitangua
Muscivora forficata
Deltarhynchus flammulatus
*Tangavius aeneus
Amblycercus holosericeus
Hedymeles ludovicianus
Passerina ciris
Tanagra chuk
Tyrannus verticalis
Myiozetetes similis
Cassiculus melanicterus
Monasa mexicana
* Saltator atriceps

* Saltator ~~maximus~~ coerulescens
Turdus grayi
Jeteria virens
Todirostrum cinereum
Polioptila caerulea?
Columba flavirostris
Nyctidromus albicollis
* Pitangus sulfuratus
Setophaga ruticilla
Myiarchus nuttingi
Chordeiles acutipennis
Glaucidium ~~minutissimum~~ brasilianum
Tapera naevius
Crotophaga sulcirostris
Piaya cayana
Cassidix mexicanus
Geothlypsis trichas
Black vulture
Turkey vulture
Caracara
Mexican Goshawk
Laughing falcon
Spotted sandpiper
green-heron
Calocitta formosa
Amazona albifrons
Aratinga canicularis

Aimophila rufi cauda
Falco sparverius
Piranga
Inca dove
white-winged doves
pale-billed woodpecker ~~Phl~~
* Centurus aurifrons
Willet
brown pelican

R. K. Selander,
1954

Notes on *C. chiapensis* collected and prepared by Chester Lamb

3½ mi. SSW Tonalá, 100 ft., Chiapas, México

March 19 Collected around camp ♀ wt. 46.0 gms.
ovary about = = not enlarged iris full red-brown.

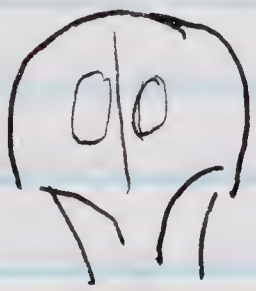
March 20 Lamb prepared another specimen of *chiapensis* which I did not have opportunity to weigh or examine.

March 22 { Collected near camp ♀ ovary 45.1 gms.
{ wing adult - iris full red-brown.

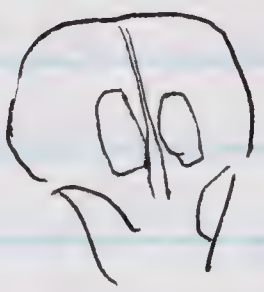
March 22 { Collected near camp - possibly first-year. 42.6 gms.
{ iris full ovary reduced.

March 25 ♂ (acc. to Chester) 48.1 gm.

March 27 1- iris full - wing adult 53.1
2- " " " " 57.2
3- iris? coverts (primary) juvenal 41.5

1. 

2.

3. 

3 mi. SSW Tonalá, 100 ft., Chiapas, México

March 20 Hunted NW of Tonalá in the truck until about 1:00 P.M. Returned to camp and spent afternoon preparing specimens. Noted Caloaltta formosa at all our stops today and around camp. They are moving about the area in small, noisy flocks and seem to be very abundant. Lamb took Amblycercus today and I noted several NW of Tonalá. Heard a barking falcon calling in late evening near camp and just after dark two pygmy owls heard calling near camp. Bonifacio shot a pavayua 5.4 mi. NW Tonalá but blew it to pieces. Lamb's boy took several Icterus gularis today not far from camp.

March 22 An Ixca dove has a nest with two young in a low bush 15 feet from Lamb's ~~camp~~ tent. Young are only a few days old. Hunted around camp and spent morning watching wrens. Heard two pygmy owls calling at 7:00 across road from camp.

March 23 Pale-billed woodpecker in tree across road from camp. Heard pygmy owls calling most of the night. Drove to Quetzalapa.

March 24 Hunting along road from Tonalá to Ocuilapa. Met Foley Davis & a Mr. Kincaid on the road in the morning.

March 25 Working SE Tonalá. Took intermediates between humilis and nigricandatus.

March 26-30 Working around Tonalá. (See accounts of cactus wrens).

Vicinity of Tonalá, Chiapas, Mexico

March 31 – April 14 – See species accounts of Campylorhynchus nigricandatus, humilis, and chiapensis.

April 7 – Heavy thunderstorm & rain during night.

April 8 – Cloudy all day – a little rain around 9:30 P.M. – a downpour for a few minutes.

April 15 Returned to Tuxtla Gutierrez and stayed at the Hotel Banampok.

April 16 Tuxtla Gutiérrez.

April 17 Drove to San Cristóbal and spent afternoon talking with Frans Blom, 38 Avenida Vicente Guerrero. He said it is not possible to drive the road south of town (there are wren records 5 & 7 mi. S). The road is gravel from here to Comitan and then paved to the border. There is a norther hanging over San Cristobal and the Central Depression but Blom thinks it may blow away in a few days. — After climbing out of the valley in which San Cristobal is located the road passes through a narrow canyon with a few small flat "valleys" to the side of the road. We pulled off the road at a point about 6 mi. SE San Cristobal and made camp in a grassy area surrounded on three sides by pine-oak forest. Camped about 100 yds. from the road. Set up tent, ate, and went to bed. A drizzling fog tonight but no wind.

6 mi. SE San Cristobal, 7300 ft., Chis., Mexico

April 18 Hunted east of camp to top of a ridge where there are several large oaks heavily covered with epiphytes. Turdus rufitorques occurred abundantly in the pine forest. Also noted Icterus phaeonotus and collected one. Saw several dozen Aphelocoma unicolor, usually associated in pairs. Steller jay fairly common in pine forest while Aphelocoma more often seen in oaks. Watched one Aphelocoma feeding in epiphytes on a giant oak. Collected 2 Pipilo erythrophthalmus in brushy growth at border of cleared fields. Took one Xiphorhynchus flammulatus from a pair foraging on trunks of small pines. Migrant warblers resembling Townsend Warblers were common in flocks. Got lost while hunting and spent over an hour trying to find camp. Noted Certhia several times in the pine forest. Several groups of orioles – possibly Icterus graduacauda feeding on smaller patches of epiphytes and leaves of broad-leafed trees. Several turkey vultures flying over camp.

When I returned to camp we found the remains of Chester Lamb's camp near our tent so we decided to move on SE to a un-collected area. We drove to a point 16 mi. SE San Cristóbal, pulled off the road into a grassy (shat) area where there a several fairly large junipers. Spent rest of day preparing specimens. We noted that nearly all the birds

16 mi. SE San Cristóbal, Chiapas, México

April 18 collected today were in breeding condition, the only exceptions being the hermit thrush (migrant), the Steller jay, and, possibly, the junco. This was surprising as we had expected the birds to be far from breeding condition this time in the year. This is interesting in view of the fact that the vast majority of birds at Tonalá are not yet in breeding condition. There the control seems to be the start of the rainy season — here other factors must be at work.

In driving to our new camp we first noticed junipers just before we reached camp — around the small settlements of Dolores. The road continues past our camp for several miles, then winds down onto a flat area where there is a town located — probably Teopisca.

April 19 Hunted around camp in morning. At the edge of a stand of epiphyte-covered oaks I flushed a Caprimulgus which fluttered about 15 feet away and perched on ground shaking and uttering a low call. It flew up several times, each time moving a few feet. After shooting it, a female, I found a white egg-shell a near the two nestlings of the Caprimulgus which I brought back to camp. The nestlings gave a soft "cheep" note — but refused to eat insect parts which were offered. The gizzard of the female was filled with parts of large beetles and, perhaps,

16 mi. SE San Cristóbal, 7200 ft., Chiapas, Mexico

April 19 other insects. The gizzards of the nestlings seemed full from the manner in which they protruded. Found a pair of Troglodytes musculus on a gentle sloping hillside near the highway. These birds were frequenting a pile of small branches and dry herbs. I saw them on the ground where they looked like small mice running along. On occasion they moved up to the top of a small tree stump. I collected one of these in the spot where I found the Caprimulgus nest. Noted a large red-bellied trogon in oak woods near the tent. Also collected an oriole - Icterus chrysater? this the common oriole seen yesterday feeding in trees in similar fashion to the cactus wrens. The common woodpecker here is D. virens, one of which I shot for identification. Took a Lepidocolaptes affinis - one of a pair on small oaks near the tent. Also collected three C. zonatus near camp.

Generally speaking, birds are uncommon in this area. The Turdus rufitorques is one of the commonest birds seen and the Aphelocoma is abundant also. The Dendroica virens occurs in huge flocks, along with several other small birds, including, I think, a Vireo sp.

Today was clear except for a cloudy period in late afternoon. At 8:30 P.M. it is slightly cold.

16 mi. SE San Cristóbal, 7200 ft., Chiapas, México

April 20 Collected a ♀ Caprimulgus carolinensis which flushed from a slope near a clearing just west of camp. Its wing was broken by the shot and as I approached it opened its huge mouth and made a hissing sound as it moved slowly from side to side. This was repeated several times. Late in the day I took a ♂ Chordeiles acutipennis which flushed in the pine-oak forest east of camp. The common warbler is Dendroica virens — flocks of these seen frequently.

In late afternoon it began to rain and we moved from camp to the home of Frans Blom in San Cristóbal (Avenida Guerrero #38) where we stayed for the night.

April 21 Drove out at 10:00 A.M. to a point 9 mi. SE San Cristóbal where I hunted in a pure pine forest, taking Cyanocitta stelleri, Zonotrichia capensis, Sialia mexicana. Steller jays are abundant in the pine forest and also range into the pine-oak formation — although they are less common in the latter vegetation type.

After hunting in the pine forest we took a dirt road which leads east from the highway and drove to a small canyon where we parked at the mouth of the canyon. There were good stands of epiphyte-covered trees mixed with huge pines on the slopes. C. zonatus was heard as I left the car

9 mi. SE San Cristóbal, 7300 ft., Chis., México

April 21 to hunt east up the canyon. A short distance from the car I found a nest in an oak, located ± 25 feet above the ground on a large, nearly horizontal branch. Blue mockingbird seen in the thick, thorny thickets beneath the oaks - collected one. I returned to the car where Bonnie had collected one wren near a large pine tree — I collected another in about the same spot. We heard various pairs calling and saw several make long flights from high in a tree, across the road to another slope.

Returned to San Cristóbal late in afternoon to prepare specimens. Heavy rain in the a little hail late in afternoon but clear during the night.

April 22 Working in the wren-area 9 mi. SE whence we collected a large series of specimens. At 3:00 P.M. we drove to the Hotel Colon near San Cristóbal and stayed the night, skinning specimens in our room.

April 23 Returned to Tuxtla Gutiérrez and stayed at the Hotel Bonampak. Had truck greased and oil changed and other minor repairs.

April 24 Had rear door fixed at the Anza Garage.

Address of Eizi Matuda:

Minería No. 88 B.
Escandon. Tacubaya, D.F. } Home?

Apartado 29864
Mexico 18, D.F. } Mail?

R. K. Selander,
1954

near Rancho Santa Julia, near Ocosocoautla, Chis., Méx.

April 24 At 4:00 P.M. drove out to above locality with Bonifacio and Alvarez del Toro to hunt nighthawks. Just before dropping into the Ocosocoautla valley we took a dirt road which ran towards a series of low, rolling hills covered with short, dry grass. In the small draws grows a dense thickets of small trees and shrubs and in some spots there are a few large trees. Many of the trees are clothed with epiphytes, which looked rather dry at this season. I took 2 photos (B&W, Roll 21) of a typical situation where nighthawks occur, according to Alvarez.

Alvarez said that C. zonaris occurs in the patches of vegetation where large trees are present. He said that in some places it is possible to find groups of 8-10 birds — he said the species is not rare and not common. The patches of trees with their cover of epiphytes probably are good habitat for zonaris. and towards the hills higher inland we did not get to, there undoubtedly is a good tall forest. Alvarez calls this "rain forest" but said it is quite some distance from the Rancho Santa Julia (which is about 4-5 miles from the highway. At the place where we stopped the wind was blowing hard and cold from the north and clouds were blowing in low over the ground from the north. At about 6:30 we saw a lone Chordeiles minor and later we saw two others flying low and fast over the pockets of vegetation and rolling grassy hills. Twice I heard the "peent"

near Rancho Santa Julia, Chis., Mexico

April 24 calls but we didn't collect specimens. Alvarez says that he found "several" nests in the area in addition to the one we reported in our article and that a doctor friend of his found "six or so" in this area. It is also at Villa Allende where Alvarez reports hearing it. And at the edge of the "jungle" at Ocote, toward the Sierra Madre, Alvarez says it is abundant over the grassy fields immediately adjacent to the edge of the forest. In the rainy season he has seen it commonly around the museum in Tuxtla. Neither Paynter, who collected for a month with Alvarez at Rancho Santa Julia, nor Brodkorb has taken this species in Chiapas as far as Alvarez is aware. Alvarez is certain that the species is present all year around at Rancho Santa Julia but thinks it is more common in the summer, in July. —

We heard tinamous (Crypturellus ?) calling and saw meadowlarks, social flycatcher, Turdus grayi, fork-tailed flycatcher, the gray-backed, black-headed species (1 collected), Bob-white and a flock of 30 or more wood ibis (!) which flew up over a grassy hill and later settled in some large bare trees.

R.K. Selander, 1954

Tuxtla Gutiérrez, Chis., México

✓ April 24 I examined a specimen of Caprimulgus in Alvarez's collection which he believed to be C. salvini but it really a ♀ C. carolinensis, a bit browner than the specimen I took near San Cristóbal earlier this week. I selected 25 skins from Alvarez's collection — these Dr. Pitelka is buying from Alvarez at $2.00 each. Included are some curious specimens of Otus, a ~~[illegible]~~ Nycytibius griseus, and an ~~white~~ oriale which Alvarez claims is new for México (= Icterus maculo-alatus)

✓ Cerro Brujo = according to Alvarez this is a mountain (6 hours ride on horse S of Ocozocoautla) where there is good cloud forest with quetzal and other typical cloud-forest birds. F. Miranda collected there and Alvarez has visited the place but doesn't remember collecting cactus wrens. In any event he has sold none of these to Brodkorb.

April 25 Bought food and drove to Ruben Diaz's place at Villa Allende. It is now possible to drive to his house as there is a road in construction (?) out of Villa Allende. Actually very little if anything has been done on this proposed road to Quechula and in the wet season or after a heavy rain it would be impossible to go beyond the center of town. It is impossible even now to drive more than a block or so beyond (= up the canyon) Ruben Diaz's house. Noted several Calocitta formosa in the deciduous forest below Villa Allende. It is cloudy over the

Villa Allende, 2000 ft., Chiapas, México

April 25 hills above the town, a "norther" having blown in yesterday afternoon and last night. However, it isn't raining so I will be able to get up to Santa Rita and beyond, provided the weather doesn't get any worse. It is cooler here than in Tuxtla and a cool wind is blowing down the canyon from the north.

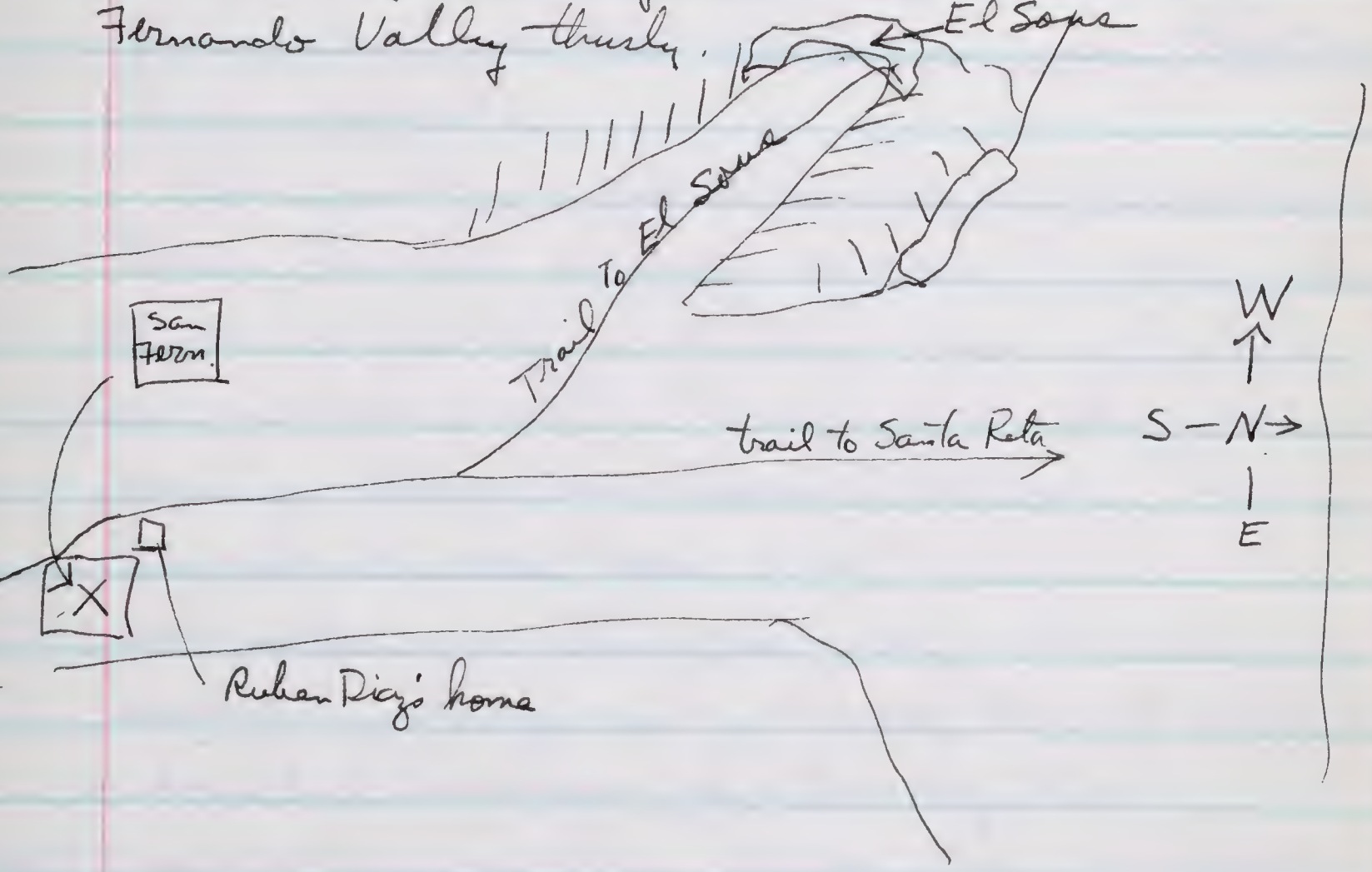
Prepared two birds (which were collected last night) while we waited for Ruben Diaz to return from Santa Rita.

At 3:00 P.M. I hunted .5 mi. N of town and collected one C. zonatus, plus Saltator atriceps and coerulescens, Thraupis abbas, Passerina sp., Contopus sp. Saltator atriceps is fairly common along the gullys where there are pockets of mixed deciduous-evergreen forest. Other birds seen were both vultures, Cassidix mexicanus, Crotophaga, Amblycercus, Icterus sp., and a small sparrow which I could not identify. It stays close to the ground in dense thickets and will not come to my calls. Skinned 6 birds just before dark. It is a bit chilly tonight and the clouds continue blowing low over the surrounding hills from the north.

R.K. Selander,
1954

6 mi. NNW San Fernando, 3000 ft., Chiapas, México

April 26 Rode out on horse to a good patch of rain-cloud forest vegetation 6 mi. NNW of town. Ruben Diaz calls the place "El Sous"; it is similar to the evergreen forest near San Pedro Nuñez. Many tree ferns, epiphytes, and vines — all evergreen. Noted tall liquid amber trees + many other species of tree including amate. Collected Syngonium for Monroe Birdsey. This forest occurs at the top of a hill at the apex of a valley which runs into the San Fernando Valley thusly.



Following the trail from Ruben Diaz's place we passed thru some fairly good - but small - stands of subdeciduous forest before reaching the more humid and completely evergreen forest. The valley floors and many slopes have been farmed to bananas, sugar cane, and corn, but there are some thick rows of trees + dense undergrowth of bushes and vines — mixed evergreen + deciduous —

6 mi. NNW San Fernando, 3800 ft., Chis., México

April 26 along the trail. Along these rows of vegetation I noted Campylorhynchus zonatus, Turdus grayi, Atrophila rufescens, Calocitta formosa (drier areas in foothills only), Xanthoura yncas, Myiozetetes similis, Saltator atriceps, Chlorospingus ophthalmicus (edge of humid forest). In the forest itself there were few birds but I collected Automolus ochrolaemus (fairly common in dense forest), Myioborus miniatus, Sittasomus griseicapillus, and noted Xanthoura yncas, Phlogothraupis sanguinolenta (?).

This forest type is probably the same as described by Birdsey. Tree ferns are fairly common. In addition a palm like plant of good size is abundant & moss & epiphytes cover just about all the trunks and branches. Various species of "elephant-ears" occur on the trees. Ruben Diaz called the area "tierra fria".

April 27 Strong northern wind blowing most of day. Skinned birds I collected yesterday and got ready to go to La Florida on horseback tomorrow for a two-day trip.

April 28-29 Trip to La Florida and return. See species account of Calocitta and Campylorhynchus.

April 30 Tuxtla Gutiérrez — finished preparation of specimens collected April 28-29 and packed for trip north to Isthmus of Tehuantepec.

May 1 Left Tuxtla and drove to Tehuantepec, where we took a room at the Hotel Tehuantepec and prepared a few birds we had collected at the Río Ostuto in the afternoon.

Isthmus of Tehuantepec, Oaxaca, México

May 2 In early morning drove to Río Ostuta, 6 mi. W Zanatepec and hunted for C. humilis for 4 hours along the river north from the road. Collected 11 specimens — also took Aimophila ruficauda which is abundant in dry vegetation in the whole area, Thryothorus pleurostictus, and Calocitta — the latter more abundant than angulata & have been. Saw Ortalis vetula, Cassiculus melanicterus, Icterus pustulatus, yellow warbler, cormorant, green heron, Aratinga canicularis, Amazona albifrons (abundant), Centurus (common).

In afternoon drove to Río Guamal, 8 mi. E Niltepec (dry river bed 30 yds wide) and set up camp. Vegetation same as at Río Ostuta. C. humilis common, Ortalis vetula, Amazona albifrons, Cassiculus melanicterus, Icterus pustulatus, Chordeiles acutipennis (one), pygmy owl present. Skinned birds.

May 3 Ortalis calling nearly in early morning. Cassiculus very active in guinacaste tree near the car. Collected 19 C. humilis. In early night we moved into the Tehuantepec Hotel.

May 4 40 mi. N of P.A. Highway on road thru Chivela and Matias Romero (? Rincón Antonio). — Hunted in a subdeciduous forest similar to that at Santa Rita — a bit drier perhaps. No wrens. Strong north wind blowing and very cloudy. Heard brown jay call. Also heard green jay several times. Wrens (? Thryothorus) should occur in parts of the forest which extends from Matias Romero north. Also there are some hills with a subdeciduous forest & epiphytes near

Matias Romero - Chinela - Isthmus of Tehuantepec

May 4 Chinela. Chinela is located in a flat valley surrounded by low hills. Beyond Chinela the country becomes increasingly greener until just beyond Matias Romero where the forest begins. It is good habitat for humilis in the valley and to Matias Romero, probably. Palms, acacia are common and the vegetation is similar to that on the south coastal plain. The change to subdeciduous tall forest takes place at Matias Romero. There are a few dry pines on a few ridges beyond that town, then the road gradually descends as you drive north, presumably into the hot, humid Atlantic lowlands. In the forest on the low hills 40 mi. N there are many small vines near the ground, a few strange palm-like plants similar if not the same as those above San Fernando, Chis., and tall thin trees, either evergreen or deciduous - Deciduous species partly in leaf now.

Between Chinela and Matias Romero there is a low shrubby vegetation, shorter and greener than around Tehuantepec. Many areas of grass. Chinela valley looks similar to a city in Durango and the hills are either grassy c̄ spotted shrubs or with a low deciduous forest c̄ cordone-type cactus. Grassy areas may have been formed after clearing of this forest from the hills. Along gulleys there is totoposte and vegetation similar to the lowlands but it is more sparse. It is easy to see where humilis could occur here in the valley but it is a bit difficult to see where zonatus occur, nearby, unless it is in the

Chinela - Matias Romero, Oaxaca

May 4 greener parts of the forest on the hills or higher on the hills some distance to the west from the town.

The wind is blowing so hard from the north that it is impossible to hunt. —

Chinela valley is separated from a smaller valley in which Matias Romero is located by a low ridge of hills. The whole area is fairly flat, however, and forms the dividing line between the hot, dry Pacific lowlands & the humid Atlantic lowlands. Noted Calocitta about 5 mi. Chinela so it doubtless comes into contact c̄ Psilorhinus in this area.

Humilis probably doesn't occur farther north than Lagunas ~~near Matias Romero~~ and it possibly goes only to Matias Romero ~~Chinela~~, but this is unlikely.

Gulls crossing Isthmus of Tehuantepec

~~The~~ Just beyond (N) Matias Romero we saw 100± black-headed type gulls in a flock flying against the wind, low to the ground, and heading directly north. The followed the gullys & small vallys and seemed to be having a tough time making progress.

Headed along highway from Tehuantepec to Oaxaca with plan to join Chester Lamb near Izucar de Matamoros.

Tehuantepec – Oaxaca Highway.

May 4 Km. 753 - collected 2 C. humilis and heard several others singing = 10 Km. ~~6.5~~ 6 mi. from Tequisistlan (=SE). Then drove on to within 5 mi of Tequisistlan, 1000 ft.±, and made camp just off the road in a cactus - deciduous tree forest where we found wrens almost as common as in the Tehuantepec lowlands. Photographs Roll #23 (color) 1×2 show place where we watched a pair of C. humilis foraging. Later I found several other pairs more or less evenly spaced in this vegetation stand and collected two additional specimens.

May 5 Collected 4 more specimens and then headed north to Oaxaca. ~~Camp~~ 16 mi. along road from camp we reached the upper limit of the forest and entered grassy hills spotted with pines. 16 miles more (at Rio Hondo) we hit C. humilis vegetation again. 18 miles beyond at K-690 we entered pine oak forest - open type and 2 miles beyond we took a picture (#3) of El Camaron Valley. At El Camaron wrens (C. humilis) singing commonly in guamuchu and other riparian vegetation similar to riparian in Tehuantepec region. Agood mimosa - cactus formation on slopes but only up the slopes a short distance the is pine forest. Took photo looking up the river where we heard humilis singing commonly. A short way up the slope from the river I found a pair with a nest (plant collected) in a broad-leafed tree. Also collected one other common tree. The nest seemed about

May 5-1 and May 5-2

May 5 half-finished. Heard one or two other wrens singing.
At a point 16 mi. before Totolapan we found a few pairs
of humilis along the stream just off the road and collected
several common trees. On hillsides the broad-leafed
vegetation is low & widely spaced - probably poor worn
habitat. Along the river flat there is a line of trees,
guamuche, mimosa (?) which form a thicker vegetation
type. In general the ecological situation is similar
to that at Totolapan (which we had photographed on way
down to Chiapas).

Plants collected

5 mi. before Totolapan the road climbs thru hills
with dry desert vegetation consisting of cardon-type
+ candelabra-type cacti of huge size, low bushes and
very few trees. Trees are mostly very coarse broad-leaf
- not much acacia-~~like~~ type trees - more in some places.
A much drier, lower, more open vegetation type than
below.

11 mi. beyond Totolapan the road climbs up onto
hills where there is a low deciduous forest in leaf.
From here on to Oaxaca is an drive thru wide valleys with
deciduous forest, often very sparse - no more
desert - which ended abruptly 11 mi. beyond Totolapan.
Near Mitla we took a picture - then drove to Mitla
and visited the ruins. Most of the area - and the
whole Oaxaca Valley region is in cultivation.
We saw no habitat in which we could expect to find
C. jocosus - but Lamb has collected this species

May 5 at Mitla — so we continued on to Oaxaca and stayed at the Oaxaca Courts, skinning 4 birds which were collected this morning.

May 6 Drove north along Pan-American highway, climbing up thru an extensive region of pine-oak forest north west of Oaxaca City where road reaches 7000 or so. At a point 46 mi. by road we were still in pine-oak forest — We then drove on to Nochixtlan, which is located in a valley with extremely poor xeric scrubby vegetation — waste land — and inquired about location of "Rancho de las Palmas" without luck. This locality probably is near Nochixtlán but the vegetation adjacent to the road is very scanty — it may be a ranch in the hills. The soil between Nochixtlan and several miles beyond Huajuapan de León must be very poor as it supports only scanty shrubs in some areas — and a fan-palm, often scrubby is very common.

Farm says it is near Llano Verde

At Huajuapan de León we turned onto a dirt road & drove along a river thru Huajolotitlan to Tomatlán where I hunted on a slope of cacti (tuna type) and palo-blanco-type trees similar to situation where we have found Brunneicapillus in northern Mexico but a bit drier & shorter vegetation. Hunted also along the river bed (all but dry) in riparian willow & Taxodium trees (huge size). Pipilo ocai was common in both types — additionally along the river I saw

May 6 Hepatic tanager, blue mockingbird, rose-throated beccard, small Empidonax, an Aimophila (rufescens ??), — but no cactus wrens. Took a picture of the town of Huajolotitlan showing cacti - fences - House finches were abundant in the colonia but we heard no wrens. Saw numerous rock wrens along road & several Canyon wrens near river in what seemed to be rock wren habitat. (Canyon wrens were singing yesterday around our cottage at the Oaxaca Courts in Oaxaca).

At point 3 miles NNW Huajuapan I hunted in a stand of fan palm & brood-leafed stand without seeing wrens, although Pipilo nutilis was common. This stand was probably too low for wrens as we found them at a point 9 mi. NNW in the same vegetation — only here the trees were much larger.

May 7 At about Km 320 we descended into a wide valley-red soil - lined w/ palms — then followed a dry stream north. At Km. 300 we hit good S. Puebla desert vegetation. Picture taken at Km. 300.

C. jocosus → Saw C. jocosus cross road at Km. 217.

> We re-joined Lamb at his camp along the highway at Km. 193, where we pitched the tent near a river lined with Taxodium & surrounded by fields in cultivation.

Vicinity of Jzucar de Matamoras, Puebla, Méx.ico.

May 8 Bonnie, Lamb, and I drove to Tepenené, 4600 ft., ± 10 mi. S Matamoras and hunted in good desert vegetation — candelabra, cordon-type cactus & many trees — while Lamb's helper — Leopoldo — guarded camp. I collected 2 Calocitta formosa - these individuals had a higher-pitched screaming call than the birds in Chiapas — a good, readily noticeable difference —, a blue mockingbird, several C. zonaria, Aimophila humeralis (abundant), Aimophila mystacalis (much less common), Contopus pertinax, ground cuckoo, and saw a large trogon, an motmot, and a Myiarchus (large species). All but the cuckoo & wrens I gone to Lamb.

The good, rich desert vegetation thins out a few miles S Matamoras — but continues in less rich stands on some low hills a few miles north of that city. Lamb said he saw cactus wrens in some cactus not far from the camp. Along the river near camp there are Canyon wrens, Thryothorus felix (Lamb has a specimen and I saw one bird in brush near our tent).

In afternoon Bonnie & I drove into Puebla in attempt to buy powder & shot to load some 38 shells — but the Aramerica wouldn't take our check and we returned with only a supply of small shot.

(Last night we had dinner & L. Forbes in Matamoras.)

Vicinity of Izúcar de Matamoros, Puebla

May 9 along stream near our tent I collected a pair of Thryothorus felix - in scrubby growth beneath Taxodium trees - They stayed well down in the bushes - the ♀ had a brood-patch. About 40 feet away I saw a Canyon Wren working out of a large crack in the face of a vertical rock cliff - this bird flew into the Taxodium tree adjacent to the cliff after I fired and missed. Saw a pair of Melanotis caerulescens along river acting as if they had a nest nearby. Also along the river are Sporophila torqueola, and Contopus sp. Red-wing blackbirds common along road from camp to Matamoras. Barn swallows common & some cliff swallows also. Chordeiles acutipennis fairly common - fly at dusk. Also heard call of C. nivius. We drove to an spot near Chiuela and hunted in the morning for cactus wrens. Atrophila humeralis common. Also Toxostoma curvirostre, Chordeiles acutipennis. Skinned birds in afternoon then drove along highway, making several stops S of Matamoros for cactus wrens (no specific accounts). No rain this evening. Loaded shells in afternoon - We are running out of ammunition so it will be necessary to buy a supply of .410 ammunition in Puebla and re-load these shells with dust shot. I gave Lamb 50 16 gauge shell cases & 100 .38 cases in exchange for 3 Kilos of small shot which I could not buy in Puebla.

D. McH. Forbes
Centenario #15
Matamoros, Puebla

Vicinity of Izúcar de Matamoros to Veracruz

May 10 Moved camp today from near Izúcar de Matamoros, stopping in Puebla to buy .410 shells (300 pesos), can of powder (35 pesos), 200 primers (30 pesos). Near Tehuacan we heard Campylorhynchus jocosus where we stopped for lunch a few miles from the center of the city near the place where the road branches off from the highway heading into town. There are some patches of desert vegetation - including yucca trees and tuna cactus near Tehuacan but most of the area is in cultivation.

✓ We then drove thru La Puerta (where we collected C. megalopterus in 1952) and down the Acultzingo grade into Veracruz. The moist pine-oak (mostly oak) forest of the type at La Puerta occurs just on the crest of the mountain before it drops abruptly off westward. Below the crest there is a dry, scrubby vegetation on the steep slopes so I doubt that megalopterus and zonatus come in contact in this region. There are several hundred feet of this dry scrub between the La Puerta vegetation and any trees which by any chance could be zonatus habitat.

We continued on down the mountain thru Orizaba and made camp in the Barranca de Metlac, 3250 ft., ↓ 3 Km. N Fortin. In this canyon the Moctezuma Brewery has a power plant managed by Sr. Daniel Rabago (Telefono 5-04, Barranca de Metlac, Sumidero). Sr. Rabago speaks good English and gave us permission to make camp in a picnic grounds just down stream

Barranca de Metlac, 3250ft., Veracruz, Mexico

√ May 10 from the power plant. There is a rest-room adjacent to the picnic area, a small swimming pool, and a covered dining area with electric lights. The Río Metlac is about 75 yds wide and flows rapidly over a stony bed just 50 yds from our camp. The barranca is narrow with just room for a road and a few banana trees at the side of the river before the steep slope of the side. The Mexico-Veracruz railroad circles the barranca 100-200 feet up on the slopes. Water for the power plant comes from a dam at a point near Sumidero and drops 400 feet to the plant, then flows into the Río Metlac. High on the slopes, just below the railroad tracks there is a line of tall, epiphyte-covered trees but below there the slope is planted with coffee and bananas. Also there are banana and coffee trees in the narrow flat along the river. Sr. Rabago said that there is a more or less constant mist in the canyon and that it is never very hot in the canyon.

Sr. Rabago recalls a man and woman camping here a few years ago to collect mammals — probably Dalquest and his wife from Kansas. He also mentioned a man camping here to collect mosquitos — but he cannot recall the name.

Barranca de Metlac, 3250ft., Veracruz, México

May 11 Hunted down river to bridge in banana trees stand and up the steep slope to the railroad tracks without seeing any wrens. Psilorhinus common and calling most of day but failed to hear the "poping" noise. Noted Xanthoura yncas, Saltator atriceps, Wilsonia pusilla, dipper (along stream), several types of swallow, a tree squirrel, and grackles. There is a pair of social flycatchers nesting in a cactus tree near the electric plant. Returned to the tent & shot 3 cactus wrens on slope above camp.

May 12 Hunted in coffee & banana plantation 2 mi N Fortín, 3200 ft., collecting Saltator atriceps (common), Xanthoura yncas, a pygmy owl, and a brown jay. Noted also Dives dives, cowbird, Thraupis abbas, Turdus grayi. Birds uncommon in the groves of coffee & most birds occur in few remaining native trees which are found along some of the gullys. In late afternoon we drove to Orizaba to buy small shot (30 pesos) and fumigants (Carbon Disulfide & moth balls). Small shot purchased at the "Cometa" across the street from the plaza—cathedral.

May 13 Hunted ½ mi. W Fortín, 3400 feet in a coffee plantation but with fair stands of mixed coffee—original forest trees. Birds more common than in coffee plantation visited yesterday. Took C. zonatus, Setenus galbula (given to Lamb), Dives dives (to Lamb), Wilsonia pusilla (to Lamb) and noted Xanthoura, Saltator atriceps, Turdus

Vicinity Fortin, Veracruz

√ May 13 grayi, cowbird, grackle, black-throated green warbler (= D. virens), Centurus aurifrons (common).

√ May 14 Drove to Orizaba and then up a dirt road south of the town which leads to San Pedro Tequila. After leaving Orizaba we crossed a canyon where there was a slow moving stream lined with large sycamores + tropical trees and a few tree ferns. The road then led up a steep canyon (no water in the rocky stream bed) through dry pine forest. We drove up 9 miles which is nearly to San Pedro Tequila. There is a good stand of sycamores along the stream bed but the slopes of the canyon are rather dry. The pines are widely spaced & dry. At a point 9 miles up the road (± 6000 feet) there is a semi level valley but the whole area, including the slopes is in cultivation. High up on the ridges above this valley there is a thin cover of pines. I noted a Atlapetes brunnei-nucha along the dry stream bed beneath the sycamores and we saw a few juncos. Up to 5000 feet we heard an occasional brown jay and solitaires seemed common in the canyon (in pines), but we saw very few birds.

I heard wrens (C. [illegible]) calling along the river ~~in the forest~~ √ we crossed just 2 miles or so S Orizaba but found no further signs of them above that point. I doubt that wrens occur anywhere in this general area.

✓ May 15-16 Vicinity of Barranca de Metlac, Veracruz, Mexico

There is a pair of Henicorhina in the dense shrubby brush on the lower portion of the slopes behind the tent. The song is: ——— (a soft woven warble) followed immediately by a melodious 'chu-twe (chu) 'chu-wee — a very stereotyped pattern with never the slightest variation. — softer than the rest.

There were remain on or near the ground and so far we have had only one glimpse of a lone bird. Thryothorus rutilus is present also - I saw one bird pass the wood even within a few feet.

✓ May 17 Moved camp to 12 mi. SSW Boca del Río, 100-200 ft., Veracruz, where we camped in an orchard of mangos at a place called San Juan del Faro. This is an association of native farmers and the name refers to the former owner of all of this territory. Cattle grazing is the chief industry here, the cattle being turned loose in the "monte" just across the road, which extends south for miles.

✓ May 18 Hunted in the "monte" vegetation across the road from camp, collecting or observing Thryothorus rutilis (heavy thickets of bushes beneath trees) and C. zonatus × C. rufinucha, Saltator atriceps and coerulescens, both types of Psilorhinus (about 2-1 in favor of morio-type - but both occur in same small flocks. No difference in voice or behavior noted), turkey vulture, Dives (abundant), grackle, Centurus aurifrons, Piliated Woodpecker, Dendrocopos

12 mi. SSW Boca del Rio, 100 ft., Veracruz, México

✓ May 18 scalaris (one pair), Aratinga, a large Amazona sp., laughing falcon, Ortalis vetula (abundant), Colinus virginianus, Ramphocaenus rufiventris (beneath trees a dark thicket of trunks & tall bushes), Uropsila leucogastra (same habitat as Ramphocaenus), Platypsaris aglaiae (common), a large yellow-bellied vireo sp., Thamnophilus doliatus (common), Synallaxis erythrothorax (common), Mionodynastes luteiventris (?), Pitangus, Empidonax alliguloris, Icterus gularis, Volatinia jacarina.

✓ May 19 Hunted over about the same territory as yesterday. the wood-ticks are so common here that it will be impossible to continue hunting unless we can get some repellent for them in Veracruz. Last night I had to get up several times to rub myself with alcohol to stop the itching. This morning the brown jays started calling about 1 hour before it was light — they are the first bird to become active.

✓ May 20 Spent day resting in Veracruz where we bought medicine for tick bites. While returning to camp I saw 4 Chordeiles minor flying low over marshy field near Boca del Río. Their behavior was that of resident birds, not migrants. One was seen to land on a small rise near the road.

✓ May 21 Drove to Ciudad Miguel Aleman and returned. At a point 1 mi. SSE La Tinaja we saw 6 Chordeiles minor flying low over ground in rain storm. Termites were flying commonly. I watched one nighthawk "boom" several

12 mi. SSW Boca del Rio — Papaloapan, Veracruz

√ May 21 times over the same spot. These birds worked back and forth over a limited area. Collected one ♂, the testis of which were only partially enlarged. Saw one other C. minor near the bridge over the Rio Blanco near La Tinaja.

√ May 22 Hunted across road from camp 12 mi. SSW Boca del Rio in the morning. Collected 2 yellow-green vireos in addition to cactus wrens. Lamb took 2 Tyrannus tyrannus, an Aratinga astec, and both types of Psitorhinus. I collected one Uroprila leucogastra which was foraging several feet above the ground in a dense clump of bushes.

In the afternoon Bonnie and I drove to Cosamalopan ~~Papaloapan~~ and stayed the night in a new hotel (Hotel Casino) there (25 pesos).

√ May 23 Drove from hotel to point 3 mi. SW ~~Papaloo~~ Cosamaloapan and hunted 45 minutes in a stand of short trees & bushes. This was one of largest stands (and one of few) seen along the road. It was similar to vegetation near Boca del Rio but more of the plants are evergreen and there is a rich carpet of grass & herbs beneath. The entire stand was only ½ block or so in area. No cactus wrens. ~~Saw~~ Collected 2 Synallaxis - both ♂, both ~~one~~ of which were infected with sarcocystis. [Birds infected this trip are — 1 humilis, 2 Chiapensis, 1 nigricaudatus, and one rufinucha, + one Saltator coerulescens (?).] Noted anis, social flycatcher in this vegetation. We then drove along SW ~~then~~ where the road is lined with mango trees & fields of sugar cane and bananas. 15 mi. SW there is ± 1 sq. mile of

Region of Río Papaloapan, Veracruz

1 May 23 semi-original vegetation remaining. Just off road there is a pool of standing water where we saw Jacana spinosa and green heron - apparently a permant pool. Bordering this there is a dense stand of rather short fan palm tree - ± 20 feet tall on the average - this has been partially cleared. In adjoining area there is a ~~a~~ clumps of trees & bushes - BHA - "Veracruz type" as at last camp + short to toposte type tree and a large-leaved guanúchal - all in all similar to veg. at last camp. There are a few taller trees - 40 feet at most, including a few guanacastes. In the palm stand, Syngonium is abundant. Generally the growth form of the stands of trees & the palms also is very similar to that at last camp - the only possible difference being the fact that practically everything is evergreen here while there was a mixture of deciduous & evergreen elements at last camp. Even so the growth form is so similar that it is difficult to see why rufinucha does not occur here. There are several explanations: 1) rufinucha has an extremely limited range of tolerance ecologically - this is suggested by its limited range and by fact that it never seems to be abundant even in extensive stands of seemingly good habitat. Some factor necessary to the bird may be absent here - possibly lack of exposed singing perches since veg. here is evergreen - I noted fewer bare branches. 2) Though suitable this vegetation type occurs in such isolated pockets that rufinucha

Region of Río Papaloapan, Veracruz

√ May 23 cannot reach it a maintain a population. It is diffficult to say what original vegetation in this area was. 95-98% is now in cultivation - mangos, bananas & sugarcane. 3) zonatus is competing and prevents rufinucha from occurring here - this seems rather unlikely in view of fact that zonatus is rather uncommon here. I saw only 2 groups in this 3rd mile & more of veg. Roll 26 - photos 10-11-12 show photo of more dense, greener portions of habitat where I hunted today. Several birds seen: Uropsila leucogastra - song wo-dul-la, chu-da-la - given as a warble (soft) on about same pitch - not confined to underbrush as one moved up to 12 feet in tree as I watched. When I shot at it and missed it flew to another tree about 10 feet distant and sang! Noted one groups of ant tanagers, collected one Arremonops rufivirgatus, saw Turdus grayi (1), Saltator coerulescens. Also Buteo hawk - probably rood-side hawk.

Found 2 groups of zonatus. I came on two (possibly more?) birds (2307-8) in dense part of fan palm stand & collected them. Later I saw a large nest high (30 feet) in a rather open, small-leaved tree, again in rather dense palm stand. At least 10 birds were in immediate vicinity. I shot one (not retrieved), wounded another, one got away, & I collected 6 others. Among latter 6 are two ♂♂ which seem to be at or near breeding condition + a ♀ with small ovary

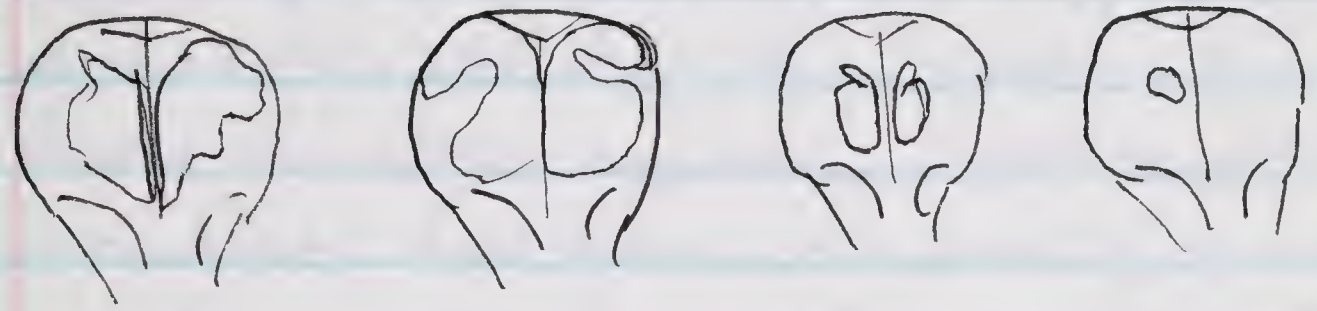
Region of Río Papaloapan, Veracruz

√ May 23 (but 3 yellow dots which may be corpora lutea) and a brood-patch which was not "jelly-lined" and which had some down growing on the bare area. It is possible that my 6 birds were really not all from one group — rather two groups located a short distance apart. I shot two birds from one sub-group near the trail — then moved in foot the next tree where another sub-group was foraging to collect the other birds. Noted birds working along branches of trees & along palm frond "petioles". The big nest in the ~~large~~ tree was over a foot long. About 10 feet from it in some tree was a smaller nest which was similar construction — rather coarse twigs — at least coarser than used in nests of rufimucha. These nests were placed in tallest tree in the area — perhaps tallest in entire stand. Actually tall trees were rather widely spaced & rare in the stand. It seems almost certain that zonalis requires tall trees — in all situations where we have found the species this is the case. A good understory of vegetation seems equally necessary.

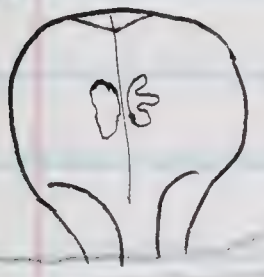
— there is a decided vegetation change 10 miles before you reach Ciudad Aleman from La Tinaja. The country before the break is dry with low bushes or clumps of bushes & small trees — actually drier & scrubbier than at last camp. Then 10 mi. from the city — palms appear and there is a good cover of green grass & herbs on

Wren skulls - May 23

2307 2308 2310 2311

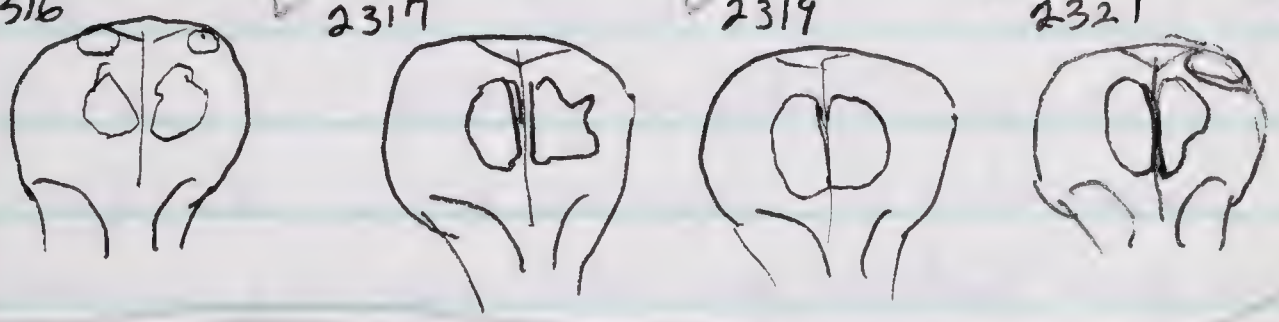


2313



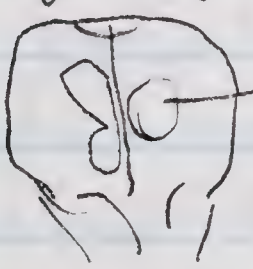
May 24 - zonatus

2316 2317 2319 2321

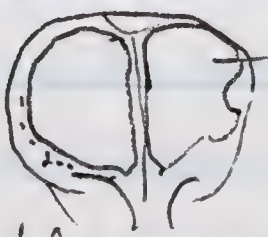


May 26 - jocosus

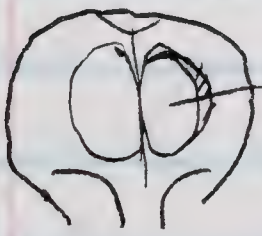
2327



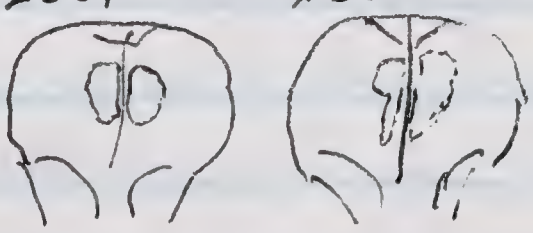
2328



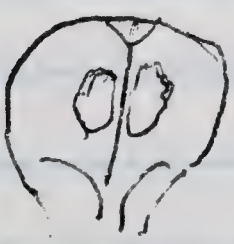
2329 2330 → about same but larger



2331 2332

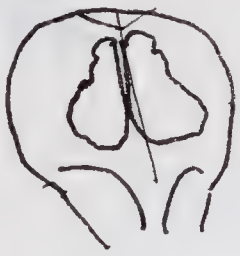


2336



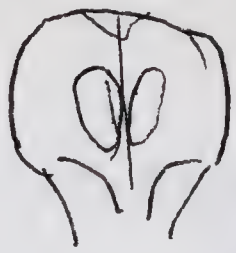
May 27 - focuses

2339



2338-2341

2340-2342



Region of Río Papaloapan

May 23 the ground, while before this point the grass is rather sparse & definitely dry. As you continue towards Ciudad Aleman the vegetation is dark green & evergreen in contrast to light green - deciduous & mixed vegetation around Boca del Río camp & La Tinaja. The change is particularly striking because between La Tinaja and Tierra Blanca the vegetation is particularly low & dry. There are a few stands of trees & shrubs, however, as at the point 2 mi. N Tierra Blanca, where we found a pair of rufinucha. Between 15 mi. SW Cosamaloapan & Ciudad Aleman there are no stands of vegetation worth investigating for rufinucha as whole area is in cultivation. It may be drier and more like veg. at last camp up around Loma Bonita, where we will hunt tomorrow.

Zonotrichias taken today: some birds with quite a good bit of fat around ~~neck~~ entire clavicular area, some with little or none. - Noted this in catalogue.

May 24 Drove to hunt 3.5 mi. W Ciudad Miguel Aleman on road subsequent to Tuxtepec. On the other side of a wide ditch (& water) there is a dense stand of large trees, palms, and a dense understory of smaller trees & bushes. This sort of vegetation is nearest thing to humid tropic jungle vegetation we have seen. On other side of road there were scattered palms and low dry bushes — evidently the area had been cleared recently of trees. I saw a pair of Zonotrichias in a palm in the latter

Region of Ciudad Miguel Aleman, Veracruz.

May 24 field but could not collect them. I then crossed the road and hunted along the irrigation ditch, after collecting a Saltator coerulescens in the low thorny brush. Zonotrichia was common along the ditch but frequenting the dense trees on other side. As it was impossible to cross the ditch I stood near a palm and gave imitations of calls, whereupon about 6 birds flew across the ditch and into the palm (a tall frond type). I collected 3 birds from this group - probably 8 or so were present. I then moved on about 50 yds and repeated the imitations, collecting a ♀ which flew across the ditch. About 50 yds more I collected 3 birds from a group of 6-8 or so which seemed to have a nest in a tall frond type palm on my side of the ditch. When disturbed the birds flew into the tall trees across the ditch but as I waited, individuals returned to the palm. I saw birds forage high in the tallest trees, running along the branches. Birds here were commoner than in other places in the area, doubtless because of the huge size of the trees and general density of the vegetation. The stand was of limited extent, however, as the surrounding area is either in cultivation or is used for cattle grazing.

[Picture: Roll 27, #1]

It was raining off and on during the day. At the ferry which crosses the river where the road goes to Loma Bonita we learned that because of the weather it would be impossible to reach either Loma Bonita or Playa Vicente. We then drove 13 mi. N Ciudad

Region of Ciudad Miguel Aleman, Veracruz

✓ May 24 Miguel Aleman where I hunted in semi-pasture land in stands of short fan palm trees and evergreen bushes. Found a lone zonatus in the palms, which I collected. I saw no other wrens here. Cardinals, Arremonops were present. Sugar cane had been planted around the dense patches of palms & trees. The vegetation was generally drier than that further south as the break between the drier northern vegetation and the evergreen vegetation of the basin of the Río Papaloapan. No evidence of rufinucha although several spots seemed to me to be fair habitat. Took picture (Color Roll 27, 2) of area where I hunted. We then drove 18 mi. N Ciudad Aleman where I hunted for 20 minutes in a stand of short trees in semi-pasture land — similar to 13 mi. N but palms absent. Found no wrens. We then returned to Hotel Casino is Casamalopan for the night.

It looks as if our record 2 mi. N Tierra Blanca is at the southern limit for rufinucha. What the cause of this restriction is it is hard to tell. Certainly if rufinucha had the wide ecological tolerance of humilis we would find it in several places south of Tierra Blanca. How it reaches Playa Vicente I cannot say, unless there is a tongue of drier vegetation reaching there from north along the mountains. In any event we have determined that it does not occur around the Río

Region of Río Papaloapan, Veracruz

✓ May 24 Papaloapan. Several birds occur here which we did not see at our camp farther north along the Río Atoyac. These are ant tanager, a blue tanager (?.), sennett-tailed flycatcher, various herons along the river.

✓ May 25 Raining hard this morning. Loaded our things into car and drove from Cosamaloapan to Tehuacan, Puebla.
Roll 27 - color #5 - 15 mi. from Cosamaloapan looking E.
#6 Vines 20 mi. from Cosamaloapan.
#7 2 mi. N Tierra Blanca at same spot where we collected rufinucha few days ago. I hunted other side of road in what seemed to be perfect rufinucha habitat — no wrens.
#8 overlooking our camp on Río Metlac.
9, 10, 11 - Acultzingo grade
12 - "La Puerta".

N - When we reached "La Puerta" the owner of the local store would not give us permission to camp, explaining that the area is a game preserve and that permission would have to be obtained in Orizaba or in Tehuacán. I took one shot of the area (Roll 27 #12) and then we drove to Tehuacán and spent the night in the Hotel Mexico. We bought food and I bought 300 rounds for 16 gauge shells and 100 #5 7 primers for Remington 16 gauge shells (30 pesos in all).

✓ May 26 Drove out in the morning to a point 5 mi. N Tehuacán and stopped at side of road for breakfast. I heard C. yucatanus calling on the slope so we decided to camp here for 2

5 mi. N Tehuacán, 1676 m.

May 26 | days and study jocosus rather than go up for a days' hunt at "La Puerta". (I learned yesterday that the local name for the top of the grade is El Puerto not La Puerta. Lamb is mistaken in calling the locality "La Puerta")

Surrounding the valley of Tehuacán there is a ring of sloping hillsides covered with a uniform stand of desert vegetation including a yucca, a good sized tuna cactus and mesquite + a few other small trees. The valley floor is farmed but patches of this desert vegetation are found between the farmed fields, such as at the place where we are camped. Around camp there are remains of several dirt huts in the center of dense stands of mesquite and tuna and at the edges of several of the fields there are rows of tall yucca trees. At short distance from our camp there is a marshy hole formed by wells I imagine and also several irrigation ditches, along which grow rows of tall trees of several types — one evergreen & somewhat like the Orange tree in leaf shape, another looks like an olive. These trees doubtless are dependent on the special conditions of good water supply found near the ditches and the marshy area. The region is definitely lower Sonoran and does not differ in any respect, with possible exception of yuccas — from many desert areas in northern Mexico where brevifolia occurs. C. jocosus is abundant here both on the desert slopes, in tuna, mesquite, other trees, and

5 mi. N Tehuacan, 1676 m.

May 26 also in the rows of yucca and, importantly, in the tall trees in the flat land, including those surrounding the marshy area. They seem more common in the latter habitat type than on the slope. Nests ~~seem~~ are placed in all types of vegetation — mesquite, yucca, "ordinary-like" tree, "orange-leafed" trees, with seemingly no special preference.

The wrens are in small groups. At one nest placed 30 feet up in a "orange-leafed" tree along an irrigation ~~ditch~~ ditch I collected 3 birds (see catalog) as they came individually to the nest. I collected another in a mesquite tree a short distance away and later heard another call in same general area — so 5 birds probably centered about this nest. As I watched, two birds of this group were together on a tuna — they gave a cha-cha-cha — repeated rapidly and with posturing of similar type given by humilis. Later one of these birds flew and in a short time a third bird flew up on the tuna where the same performance was repeated. About 40 yds away, 30 feet up in a thin-leafed tree there was another nest and about this centered another group of 4-5 wrens, several of which I collected at different times during the day. In the same general area I came upon a group of 4 (possibly more) in a row of tall trees along a path. I examined one empty nest placed in a small tree about 9 feet up but found no eggs.

5 mi. N Tehuacan, 1676 m.

May 26 on the hillside I found the wrens evenly spaced in similar sized groups. Within these groups there is some evidence of pairing in that pairs are frequently seen flying about & calling. I collected several birds. When wounded one bird went down a rodent hole at the base of an agave. There are few agaves in this area and most - perhaps all - appear to have been planted by former inhabitants of the rather numerous huts in the flat areas. In general these birds are wary and their behavior recalls that of Leucolepis. In the low desert vegetation they frequent all levels from the ground, where they feed not infrequently, to the tops of the yuccas. Calling generally takes place from the top of a tree or mesquite but they call also from a dense thicket while they are concealed from view. Their flights are short & direct, rarely exceeding 30-40 yds. and mostly much shorter as they prefer to work thru the vegetation rather than to fly over it. The do not call frequently by and after once calling they are likely to remain silent for some time. The white in the tail is conspicuous in flight as the tail feathers are somewhat fanned out. The resemblance to Leucolepis is sometimes striking when the birds are seen in the cactus and mesquite. Like that species they are difficult to hunt in open situations.

In the tall trees they occur at all levels from

5 mi. N Tubuaean, 1676 m.

May 26 the tops of the trees to the ground. They make flights from the few mesquites bordering the rows of tall trees into these trees. Often they are first seen high in the trees, running along the branches. I noticed several times birds clinging woodpecker fashion to the trunks of these trees. They do not seem to work over the outer leaves as does Zonotus in such vegetation. I can see no special use of the bill, which is rather long & narrow. It make function in permitting the bird to feed on insects in the centers by allowing it to reach in between spines or it may be useful in feeding on tuna fruit. In any case I have seen no evidence that it is in any way used in digging in the ground and I doubt that these birds ever feed in that fashion. (Zonotus probes in flight & has a long slender bill, suggesting, perhaps, that the slender bill of Toxostoma is an adaptation for probing, most likely in the tuna fruit or fruit of other cacti — At our last encounter with this species we found evidence of this type of feeding.)

In a fairly clear area adjacent to a dense stand of mesquite & tuna and about 20 feet from a straw hut there is a nest placed 12 feet or so up in a large mesquite — I flushed 3 birds from this nest about 1 hour before sunset.

May 27 There is another nest in a small mesquite a short distance from the larger mesquite. This nest was

5 mi. N Tehuacán, 1676 m.

May 27 placed no more than 4 feet up. (See photo, roll 28 showing nest in large mesquite + small tree (with nest removed) in background). I flushed a bird twice from this nest during the day. On the second time I collected the bird (#2346), a ♀ with brood-patch, and took 4 eggs – just slightly incubated – from the nest. The nest was constructed of dry grass stems a fine, thin twigs and was lined with a thick shelf of chicken feathers. Other nests I have examined have contained fewer feathers.

This morning when we got up around 7:00 – three birds were building a nest (see 3 photos Roll 28) in a yucca head directly over the car. We watched for ½ hour or so as they brought fibers to the nest which they extracted from mid-down in the yucca heads. Dead fibers hanging on sides of heads were torn off and carried to the nest. After working at this for 3 hours! we did not see them carrying material again but we did notice several birds – presumably the same ones – in the dense mesquite-tuna stand adjacent to the line of yuccas. In late afternoon I collected a bird in the yucca line – # 2345 – which I believe to be one of the birds working this morning. Bonnie says that while I was out hunting only 2 birds were working on the nest – but there were 3 present a working earlier I am certain. There is a good possibility that these birds were the same 3 which I flushed from

5 mi. N Tehuacán, 1676 m.

May 27 the nest in the large mesquite tree yesterday but I cannot be absolutely certain of this.

In the mid-morning I flushed a ♀ (see ~~note~~ catalog) from a nest in a small "olive-type" tree down near the marshy area. She had a good brood-patch but there were no eggs in the nest. I heard another wren calling in a nearby tree but could not locate it.

Calls:

✓ ① gu-gu-gu-gua-gua-gua – very fast and very similar to "guo" call of brunneicapillus from which it differs only in being a bit higher, less harsh, and of weaker volume. Often this call changes to a che-che-che-che which is higher pitched.

When I flushed a ♀ from a nest (containing eggs) she flew to a nearby tree and later gave the gu-gu-gua call – so apparently both sexes give this.

✓ ② the che-che-che-che-chit call is different from ① but the two are similar in tempo and the ① may be followed by ② without a break. This call is tense and, higher pitched, and ~~increased~~ slightly in pitch as given. When two birds meet this is the call given – usually by both birds & excitedly – not often together in perfect unison, however. It recalls the calls of humilis & rufinucha under similar circumstances.

?? ③ che-che-who – I heard ~~one~~ a bird give this twice very softly – twice – but I cannot even be certain it was a cactus wrens although the tone & quality was wren-like.

5 mi. N Tehuacán, 1676 m.

May 27 Certainly the gu or cho call shows a definite relationship to brunneicapillus. This is the only species which has a call of this type - humilis or rufinucha never give anything like it. It is so similar to that of brunneicapillus that at first I thought sure the big cactus wren was here instead of jocosus. However, I dont believe that brunneicapillus gives the che-che-che-call where pairs meet and further I am almost certain that the social set-up in that species is one of pairs not groups. This latter type call + general behavior = posturing when 2 birds meet, etc. seem to indicate a relation to the rufinucha group.
There is no duetting of separate songs as in rufinucha - and in fact there appears to be only the two types of calls. Rufinucha has, however, a che-che-che- nasal type call which is given by single birds or by a pair, especially when slightly disturbed or in response to my squeeking. I remember when I once shot one of a pair of rufinucha the other gave a nasal, excited che-che-che, which as I recall is very similar to the call of jocosus. Posturing is much rarer than in the rufinucha group but it is similar - ie wings hanging, tail fanned. I have seen it only a few times.
Associated birds: Pipilo fuscus - abundant; Toxostoma curvirostre - fairly common; house find - common in big trees; Thryomanes bilbicki - two seen on hillside in what seemed to be same situation as C. jocosus.

5 mi. N Tehuacán, 1676 m.

May 27 Aimophila mystacalis - 2 seen May 26; phainopepla - not common on hillside; Vermillion flycatcher - common around big trees; oriole sp? - common; Kiskadee flycatcher - around big trees; grackle - big trees; Centurus - common in cactus; Dendrocopos scalaris? - in big trees; white-winged dove; mourning dove?; Astec ground dove - common; Turdus migratorius - big trees; - black-headed grosbeak - big trees.

Picture: Roll 28 - 1, 2, 3, 4 - Bonnie took these of wrens building nest in yucca line near the car. 5 & 6 - slope across the road showing typical desert vegetation where I heard a group of wrens. 7 - trees where I shot group of 3 as they came to nest May 26; 8 - big tree habitat near marshy area. 9 - another shot of same area; 10 - nest tree where I flushed 3 wrens last evening, showing small mesquite in background where nest containing eggs was located.

— The fact that jocosus is not limited to strickly desert vegetation convinces me that it may be possible to find a contact between this form and gularis since that form has a rather wide ecological range to judge from reports in literature and my observations of last year when we found it in riparian vegetation and frequenting tall walnut trees in a desert area in Hidalgo.

R. K. Selander,
1954

"La Puerta" [= El Puerto, Veracruz]

√ May 28 At 7:30 we drove up to "La Puerta" and I hunted for 20 minutes below the store at the summit through some stands of "small" oaks and few scattered pines. Then we drove up to the summit and found Lamb camped there. He had taken 3 C. m. nelsoni — 2 juveniles and an adult. I hunted for 3 hours and saw 12 or so wrens in groups of about 5 birds. I shot 3 - not juvenile. I found a single wren foraging along the epiphyte covered branch of an oak. All the wrens we found in a thickly wooded slope of a small canyon where the oaks were large & dense. When flying off, sometimes in pairs, other times in 3's or 4s, these birds give a rattling call similar to that of zonatus but weaker and less ~~[illegible]~~ noriferous. In fact all of the calls of this form are more subdued, less loud and excited than those of zonatus. The common call is a che-che-che or cha-cha-cha — nasal in quality. I did not hear any definite syncopated or strongly rhythmic calls as in zonatus but several times the ~~cha~~ series of cha notes speed up and started to develop a fast triplet rhythm. Several birds may call together but not in perfect unison and with no development of a strong syncopated rhythm as in zonatus. In the flight call and sound of other calls this bird is close to zonatus, however, even though there is a

R. K. Selander,
1954

"La Puerta" [= El Puerto, Veracruz]

✓ May 28

good difference in their noises so that it would not be easy to confuse the two. Actually I had expected nelsoni to sound more like zonalis than it does. The occurrence in groups indicates the same social set-up as in zonatus.

These wrens look much like zonatus but seem to be less wary and tend to fly slower and to move shorter distances. They are rather easily approached as they forage on ~~trunks~~ branches of the oaks where they are hard to locate because of their color and pattern. The most striking difference between this form and zonatus was the softer, less excited calls and movements. We located them by hearing several of the birds calling. When I shot at one bird in a group the others usually moved into the next tree where they began foraging again and occasionally one would remain behind in the tree but would usually be silent. All birds were seen in mid or tops of trees - oaks about 20-30 feet high.

Other birds in same habitat: Cyanocitta, Aphelocoma, Catharus, Pipilo erythrophthalmus, also in area were Pipilo ocai, Turdus migratorius, black-headed grosbeak, Aphelocoma coerulescens?

R.K. Selander,
1954

"La Puerta" [=El Puerto], Veracruz

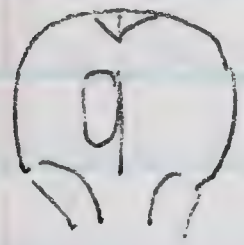
✓May 28 The stands of oaks where nelsoni occurs are very limited in extent in this area, existing only at the top of the ridge which forms the summit. 200 feet below the stone at the summit the vegetation is shrubby and unsuited for wrens. Below this the scrubby oak & other temperate vegetation blends into the typical Lower Sonoran cortes-mezquite-yucca forest of the Tehuacan Valley.

Much of the area along the ridge at the summit is being cleared for cultivation and in several more years all of the remaining good, dense stands of large oaks may be destroyed. As it is now I could find wrens only along rather steep slopes which haven't as yet been cleared. Lamb said that collecting was much better here 10 years ago when he took specimens of Cyanolyca nana near the camp spot. I could not judge how far north and south this "cloud forest" extended but just over the summit west of camp the steep slope is covered with dry low vegetation unsuited for wrens. The forest of large oaks is certainly well isolated both east and west.

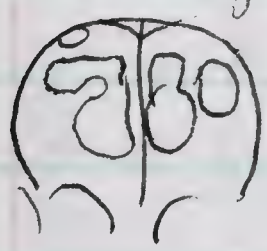
We left at 12:00 and drove to México City. —— the town of Río Frio is located in a grassy valley ringed with slopes of pine forest. After leaving the town the road climbs perhaps another 1000 feet

Skull condition of urene: nelsoni

2348 - nelsoni



2392 - gularis ✓



Mexico City

May 28 to the summit. I saw no firs all along the way and the pines were not covered with epiphytes. Lamb has camped at Río Frío but I am not sure of the location of his camp.

May 29-30 México City — Hotel Palanco. I had 200 16 gauge shells & 100. 410 shells loaded with dust shot at an Armeria on 16 of Septiembre — about 6 blocks from the zocalo on left hand side of street — Cost: 360 pesos. Wrote letters to everyone.

May 31 Drove to Toluca and then south along highway toward

[Roll 28, #11 - Place where I took specimen of C. jocosus on June 1 near camp of May 31.]

Tenancingo through a broad valley in cultivation which is surrounded by slope of pine and oak. Just before (N) Ixtapan de la Sal (1900 m) we crossed several deep arroyos with arid tropical forest in them. S of Ixtapan the land lowers after climbing up to 1670 m. at Tonatico. We drove on to ~~abs~~ El Mogote, Guerrero where we camped in a thick forest of arid tropical vegetation — in growth form similar to that in Oaxaca but lacking the cacti. There are some short fan palms mixed in with the deciduous trees. The common large-yellow-flowered tree is here along with an acacia-like tree & several broad-leafs. Most of this vegetation is not thorny, however, and BHA is absent along with the candelabra & tuna

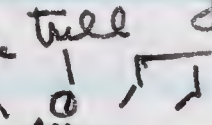
El Mogote, Guerrero

May 31 cacti - Even so, the area looks as if it would be good place for *C. jocosus* to occur. There is a large barranca west of us - presumably that of the Río Chontalcoatlán. The entire area is covered with nearly uniform arid tropical forest similar to that in which we are camped. We are at the edge of the mountains which drop off rapidly just west of our camp into the lower area around Grutas and, especially, western Morelos. There is more than 1000 foot drop between our camp and Cocoyotla or Telecala, Morelos. Grutas is located $\frac{3}{4}$ or so of the way down. El Mogote is located at about 5000 ft - to judge from maps - while Telcala is at ± 3100 feet. The most abrupt drop is between El Mogote and Grutas.

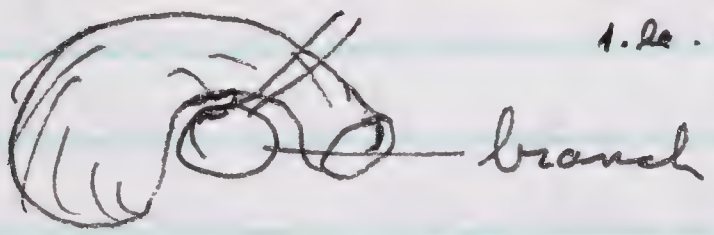
Time limited to 10 or more types coming to lamp at night.

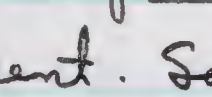
June 1 Hunted around camp from 7:30 - 10:00. I saw only one *C. jocosus*, which I collected - an adult ♂. I was walking along a rocky road when I heard a call which suggested a cactus wren - but I can't describe it. As I entered the edge of the forest this wren flew up to the top of a tree with something in its bill. After collecting this wren I saw another wren carry material to a nest 12 feet up in a tree (brood-leafed). I thought this also was a cactus wren but it proved to be *Thryothorus pleurostictus*. The nest was nearly completed.

El Mogote, Guerrero

June 1 This species is very common here in the denser parts of the forest. It is a longer lived than that in Chiapas and the song is different — being both louder and consisting of a slightly different pattern. —— whistle trill  There birds are not confined to understory (of which there is very little — but range up into the trees and sing near tops of trees. Songs heard constantly all during the day. Two nests seen both constructed as follows:

1.2e. draped over a limb.



Also took 2 Melozone kieneri — one on ground, other perched 1½ feet from ground. Took one Thryothorus felix in dense vegetation not far from where I collected fleurosticta. Habitat difference not apparent. Song ! !  — a whistling quality. Aimophila humeralis is abundant. Also saw one group of Aimophila rufescanda. A Myiarchus flycatcher, yellow grosbeak, many Icterus pustulatus, several canyon wrens, turkey vultures, golden ground dove (abundant) Crax alberti (heard) also noted.

In a way T. fleurosticta seems to be taking the place of C. jocosus here. Jocosus is rare in this vegetation and probably rare throughout Guerrero since the only other place it has been collected is around Chilpancingo. The elevation is not too high for it here and there

El Mogote, Guerrero

June 1 seems to be no obvious reason for its rarity since observations of it in Oaxaca & Puebla suggested that it has a rather wide ecological tolerance. Possible reason for rarity may be absence or rarity of spiny trees for nests.

In the afternoon we drove down the road three kms, stopping there where we collected several mayflies dead on the swimming pool water.
Just beyond Grutas I in Morelos hunted along a stream where bananas, lemons & rice were in cultivation — noted Black Phoebe (feeding 2 large young), social flycatcher, ani, Sporophila torqueola, Volatinia Jacarina (punctulatus?), motmot (mexicanus?), turkey vulture, T. fluvirostris (heard), and red-eyed vireo — also red-eyed cowbird. No cactus wrens.
Between Grutas and Cocoyatla we stopped and I hunted in a patch of tuna cactus & a cocatello-type bushy tree. Noted several Toxostoma curvirostre and saw also Turdus rufo-palliatus. This seemed good brushy pasture habitat. Beyond this point the region is farmed so extensively that we decided to return to El Mogote for the night. We camped about one mile west of where we placed camps yesterday.
Collected one Xenospiza humeralis and heard T. fluvirostris singing near camp. No cactus wrens heard.

Selander, 1954

El Mogote, Guerrero

June 1 Since there is little chance of finding a good collecting locality lower down than El Mogote we have decided to hunt here tomorrow - then work north. Probably there is or was a good even transition between the type of arid tropical forest we are in now and the more arid forest of the Mexcala region. Despite the heavy farming and its affect on the vegetation I think the lowlands west of El Mogote were originally more barren than are the slopes today. There is more cactus there - but only in small patches where the land hasn't been cleared or grazed. Along the barrancas it is fairly humid - note bananas & oranges being grown & plenty of water for irrigation is available. Our best chance to find jocosis & guloris meeting will be north of here, possibly around Sultepec - but that is a mining town higher than most of this land.

June 2 I hunted around camp and in the area where I took the single cactus wren yesterday. No signs of cactus wrens. I collected a few other birds then we drove to a point 1 mi. ENE Villa Guerrero where we had lunch along a stream in oak - other temperate trees and I hunted for about an hour without seeing any wrens. We then drove into Toluca. There are no good collecting spots in the area around Toluca but there are remains of the oak-pine forest on the hills which enclose the valley.

Selander,
1954

Toluca to Temascaltepec

June 2 Drove from Toluca a few km. W where the road turns to Temascaltepec and Sultepec. The ~~the~~ road is in terrible condition and it is possible to go only about 6-10 mi. per hour. Passed through forest stands of pine, then several good stands of fir (large trees). On shoulder of the Volcan de Toluca the land is fairly flat - meadow rimmed with stands of pine - fir being not too common. After passing over the shoulder of the Volcan the road descends through similar country, crossing several canyons. Finally we reached Temascaltepec canyon - one of the largest in the area and descended to about 7000 ft where we camped in a stand of tall oaks for the night. There seems to be plenty of habitat for megalopterus all along the way - and the oak-pine forest at head of Temascaltepec canyon is probably very good habitat.

June 3 Descended Temascaltepec canyon, passing Real de Arriba about 3 mi. E Temascaltepec. Before reaching Real de Arriba we stopped and hunted in pine-oak near a small stream - finding Pipilo fuscus and Aimophila rufescens. Bonnie thought she saw a Cactus wren (gularis) in a thicket by the road. Descending to Real de Arriba we found pines on the top of the canyon and a stands of mixed-oak-other broad-leaf temperate trees in the gullys. Not a great deal of land is farmed owing to steepness of canyon, but on level areas on either side of the canyon the dry pine forest has been cleared and planted. The vegetation around

Selander,
1954

Temascaltepec, 5500 ft.

June 3 Real de Arriba and Temascaltepec is similar. but above Real de Arriba it is more humid and there are good stands of oaks with some epiphytes on them. Actually except for the riparian vegetation and several of the gullies sloping from the canyon sides - it is rather dry here. There is a good carpet of grass on the flat near the river and a good cover of herbaceous elements. The life-zone here is either Upper or Lower Sonoran - probably at lower edge of Upper Sonoran.

(Photos 5,67 - Roll 28 are of camp 1 mi. E Temascaltepec.)
I hunted for 4 hours from camp along slope of canyon up to Real de Arriba and then back to camp along the stream. In a thick stand of oaks & broad leafed trees on the slope I saw Atlapetes Townsendi-nuchalis, blue mockingbird (very common), Turdus assimilis, Melozone Kieneri, and up on top of the canyon wall I shot a canyon wren. In a stand of dry pines I took a Bewick wren and saw bridled titmouse, Hemophila ruficeps is fairly common in the canyon as is Catharus. Collected large series of melaids of two types on herbaceous vegetation near our camp. The melaids were flying - almost in a swarm - and seemed to be keeping to the one particular species of herbs - but one saw them on other vegetation also.

(Several photos of mean repairing boudge and #12 of the roll showing the Volcán from the summit.)

Temascaltepec to Toluca

June 4 Broke camp early in the morning and drove to point where we possibly saw a cactus wren - above Real de Arriba. I hunted in oak pine stands and hedgerows for about 1 hour. Acorn-storing woodpecker was fairly common but I heard no cactus wrens. Above this point we climbed through several canyons and stopped for lunch in a good oak-forest - very humid. Turdus assimilis and acorn-storing woodpecker were very common in the oaks but I heard no wrens. We then drove to Toluca, stopping for an hour at a point 15 mi. SW Toluca in the only good pure stand of firs (giant trees - with grassy flats) encountered along the road. I took 6 Troglodytes brunneicollis - which I found abundantly in the firs in family groups. The call note is a nasal shee like that of a nut hatch. I also took a Catharus and a Turdus migratorius. Pipilo seen once - a dark headed bird. Oriturus and Junco was extremely common and several sabre-wing hummingbirds were noted. The elevation here is about 9000 ft. Potatoes are grown just below and just above this point. Firs are not so rare on the Volcán de Toluca as Goldman describes - but there seem to be very few good stands of pure firs. Several types of pine are present - a lodgepole type found in dense stands about 10 mi. from Toluca (just before reaching the fir forest where we hunted) - and a larger type which is the dominant species in the higher part of the country.

Toluca, México

June 4 Stayed in Hotel Colonial in Toluca where we skinned 8 birds. Very tired after our long trip.

June 5 Had car greased, belt on generator changed, wheels packed at Ford place in Toluca. Drove to Quinta Mitzi Motel just outside of Tuxpan, Michoacan, where we stayed for the night. The owner mentioned that Richard Van Gelder from the Illinois Natural History Museum had stayed for 2 weeks at the motel last December — collecting herps. Collected a Pipilo fuscus on gravel driveway of the motel.

June 6 Drove along highway toward Morelia thru pine woodland. at Km 226 I saw a C. gularis cross the highway and fly into a clump of bushes (see photo 3-Roll 29). The road climbed into high mountains with rich pine or pine-oak forest and a good fir-oak-pine forest in higher parts. At Puerto Mil Cumbres the good humid forest-habitat of megalopterus begins. At Puerto Garnica (Km. 258.4) I took photos 4 & 5. This is very good megalopterus habitat and is about the place where Sibley took a specimen which he labelled 30 mi. E Morelia. We then drove to the point where the road turns south to Tzitzio a Huetamo and drove down to a point 3.5 mi. NW Tzitzio, 6000 ft. — where we camped at side of road. Our camp was about 2.5 mi. above (= NW) of San Juan de los Llanos — the place where Davis & Lamb camped. The country is very hilly — with the land sloping off abruptly to the south. There are fair stands of pines high near the highway but around Tzitzio there is little pine (contrary to Davis' report).

near Tzitzio.

June 6 The most common vegetation on the steeper slopes is oak. Most of flat land & many of slopes have been grazed heavily or are being farmed & probably the entire area - with possible exception of some higher slopes away from the highway - has been disturbed in one way or another. Two types of oaks present - a thin one forming rather dense stands - but all of these ~~[illegible]~~ sin leaves - dead??. The other sp. is a broad tree with huge leaves and usually occurs in scattered pairs of single trees dotting a hill. There is a heavy upward invasion of various leguminous thorny trees & bushes - mesquite probably - and other desert elements. Also a very few tuna cacti, some century plants & we saw one dead-looking fan palm. These desert elements are very common - especially along the road, where the heaviest grazing has occurred & I think it is a secondary thing this being present so commonly at such an altitude. Many photos - Rolls 29-30 will show typical habitat in this region. Probably the area is between Upper & Lower Sonoran as regards life-zones. The desert elements reach their highest elevations here - above is pine or pine-oak forest, drier than farther east but still rather dense & "rich".

near Tzitzio

June 6 Found 3 or 4 C. gularis together at edge of stand of thin, "dead" oak & thorn trees. As I watched two birds moved off & seemed to be paired as they foraged along branches of a sparsely leaved oak, picking at lichens & exploring in the few "pineapple" epiphytes. Most of foraging done on bark, branches, but they never failed to investigate oak epiphytes when they encountered one. I saw one bird approach the other seemingly groom the neck of it while it stood motionless. These birds were silent but before seeing them I heard several short, rather soft chip-notes. Collected one of these. Late in day I collected another adult in thorn-scrub near camp. These wrens are not common. I saw only one nest — an old dry one — When I touched it with my shotgun a small mouse jumped out, fell to ground (7 feet) & ran off. The nest was placed ± 7 feet up in a small dead tree (not thorny & helicine). I also collected Thelozone (common in dense thorn vegetation lining bottoms of gullies) and Thryomanes bewickii & other birds (see catalog). The Thryomanes are scarce but seem to be in same habitat as gularis. Once I saw a Thryomanes dive at a gularis which had just flown into the same bush with the male wren. The attack was more or less ignored by the gularis. Foraging is at mid-levels in vegetation — usually in trees of fair size but they also visit small, low, thorn vegetation. The oaks seemed frequented quite

near Tzitzio

June 6 a good hint. Never saw birds foraging toward tips outer branches as does hemilis. Rather - almost all foraging is done along branches & fair size, especially near-horizontal ones.

Flight is rapid & direct & flights are long. The birds are wary & silent & it is necessary to use #6 gauge shells to get them. They tend to move through trees rapidly when approached & none of the birds seemed confined to definite areas. Flights average perhaps 30 ~~40~~ yds but I saw flights of 75 yds or so, always the bird remains low when flying — not unlike jocosus. In general appearance & behavior gularis is similar to jocosus — but seems much less noisy & vociferous.

At 5:00 P.M. we heard a short ~~"ch"~~ "heent" note which I at first thought was that of Chordeiles minor. Several large swifts were flying low (40-50 feet) above the ground & coming from the NW (where there are a series of cliffs). One passed low over the road & I got it with a long shot with a high-power 6 shot. It is a San Geronimo Swift - hitherto recorded only over Tzotzil Gutiérrez, Chiapas, & in the mountains of Guatemala. I should judge that there were at least 5 present & possibly 8 or 10. They flew around camp for about 10 minutes but I couldn't get another shot. Then they flew SE. Two other spp. of swifts were flying in same area at same time — one a medium to small

Near Tzitzio

June 6 species with uniform brownish or dark grayish color & a truncate tail which was often partially fanned. The Parvipitilas were easily recognizable by their dark coloration, large size, and by the fact that they appear to have almost no tail in flight. The call is somewhat similar to that of Chordeiles minor but is less nasal. In flight they look superficially like a small nighthawk. Took several photos of the specimen. Several swallows were flying in same area with the swifts.

June 7 Hunted 1½ hours around camp & collected 2 more gulosis - one a full-grown juneral. The juneral was in company with other birds. Again I found them in the larger trees - oaks & thorn bushes or trees. (Spec. labeled 1 mi. NW Tzitzio).

In the late morning we drove down to 1 mi. NW of Tzitzio where I hunted along a thickly wooded (thorn-tree) gully without luck. As we were returning to our old camp site I saw a wren cross the road & fly up through a pasture to a broad oak - about 75 yd flight in all. As I approached the bird moved twice to other oaks. There I found two birds (incl. the one I was chasing), two of which I collected. One flew to a low thick thorn bush where it remained concealed for several moments before I managed to collect it. Another flew a long distance away over open grass-meadow to a distant clump

near Tzitzio

June 7 of trees. This was the most open situation in which I have found this wren — actually a meadow (dry at this time) of grassy fields with a few oaks here & there. 1)

Calls: Did not hear "cactus wren" song - gua.

2) Did not hear prolonged cha or che call. Heard only a few rather soft & note too nasal chow chow, chow calls, given by single birds. This is quite unlike the 'che (nasal) call of jocosus & is not easily recognizable as being that of a Campylorhynchus wren. The nesting season seems well in advance so this will have to be taken into consideration in my thinking on differences between gularis & jocosus. - Davis mentions this wren as being "very common" in thorn formation & "rare" in oaks. Actually by my standards it is only uncommon in the area & seems to be present a good deal in oaks. I think the lack of nests is good ~~[illegible]~~ clue to its abundance. Few observations of more than 2 birds together suggest possible social set up similar to jocosus but will need more work. At noon we took several photos of cliffs above Tzitzio area & then drove to Km. 259, 1 Km or so from Puerto Garnica (= 1 Km. W Puerto Garnica, 8500 ft.).

Puerto Garnica, Michoacan

√ June 8 Sibley mentions specimens of Pipilo from "Puerto Carnica," 9,100 ft., Sierra de Ozumatlán, Michoacan" The "Caminos de Mexico" book gives the name as "Puerto Garnica" and I judged the elevation to be 8500 ft. and so wrote on tags today. We probably are higher than 8500 ft.

At ~~7:00~~ 5:45 A.M. I heard C. megalopterus call near the tent. Hunted from 7 to 9 in a circle close around camp (not more than ¾ block in any direction). I collected 8 birds, shot but did not recover 2 more and probably 2-3 more were present. This suggests a "colony" type accurrence as in zonatus. The birds are in the highest parts of tall pines & oaks so that it was necessary to use 16 gauge - full-load shells to get most of them. Generally they were in pairs and were seen chasing one another thru the tops as does zonatus. Others fed on pine branches high up. Calling stopped altogether at 9:00 and started off noticably around 8:30. I can see no real difference in flight between this form & zonatus. They both have the appearance of a small jay as they glide with tail fanned a bit.

The oaks-pines-firs here are very tall trees — 150 or more feet high. Epiphytic moss & lichens are abundant & other types of epiphytic growth is present. Around camp many trees have been logged but there is still a heavy stand of vegetation. There is a good understory of scrubby & small-tree vegetation.

Puerto Garnica

✓ June 8 Once I shot a bird which was foraging 100 ft. or so up in a pine. It fell calling and was followed down to the ground by two other birds which dose at it + gave squawking, excited calls. I saw one bird cling to a fir trunk near the ground. When I approached closely - all birds flew. These wrens are not really wary however - it is just that they seem constantly on the move - especially early in the morning. Just befor 9:00 I found a lone bird foraging in a small oak near a native cabin - about 10 feet up. The bird made no sound as I watched for several minutes. Just after collecting this bird I walked past another small oak, heard a single soft cave & turned to see a wren foraging ± 7 feet from the ground. This bird also collected.

Saw no preference for any type tree. Occurred in all types - pine - oak - fir.

Calls - 1) a staccato, syncopated ⊓ ⊥ ⊓ ⊥ given by pair of birds. Common & similar to call of zonatus.

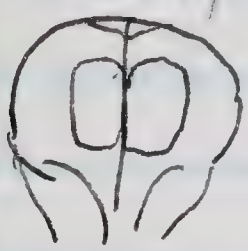
2) che ⊔⊔⊔ 3 cha ⊥ - given by lone bird repeatedly & loudly.

3) ⊥ ⊥ , ⊓ ⊥ - che - cha - common.

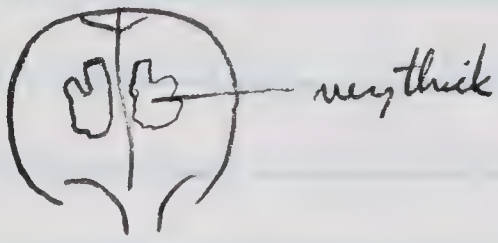
4) a rambling staccato series of che or chit notes given whenever a pair moves - given in flight & corresponds to flight call of zonatus.

Skulls of megalopterus - June 8-9

2397 - M



2398 M



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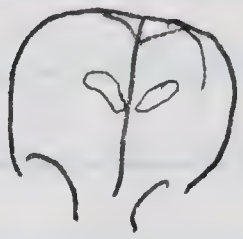
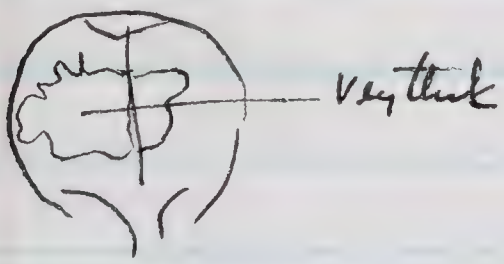
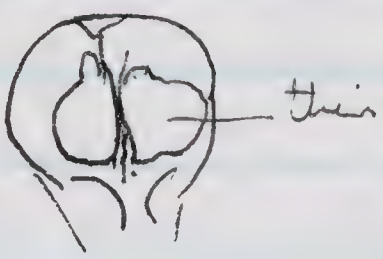


2400 M



2401 M



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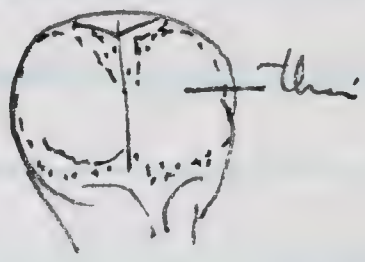

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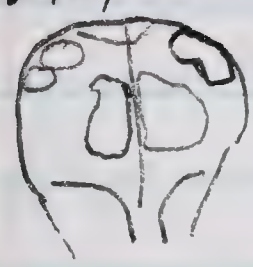

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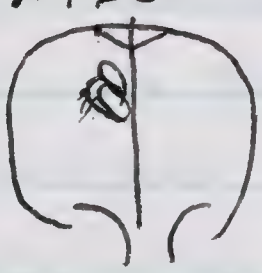

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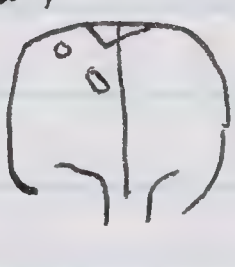

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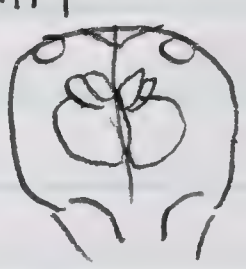
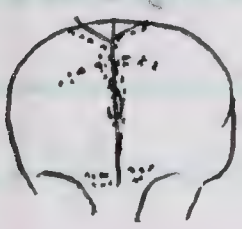
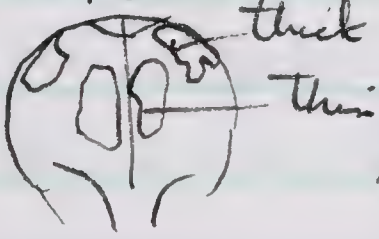


2413 M



2415



2418 - M

Similar to 2415 but has central spots only.

Puerto Garnica

√ June 8 The calls of this species are very similar to those of zonatus — and any differences I note are only general impressions — but these birds seemed a slight bit less vociferous and the call seemed less grating or nasal. Degree of difference is no greater than between calls of humilis and rufinucha.

Other birds in area:

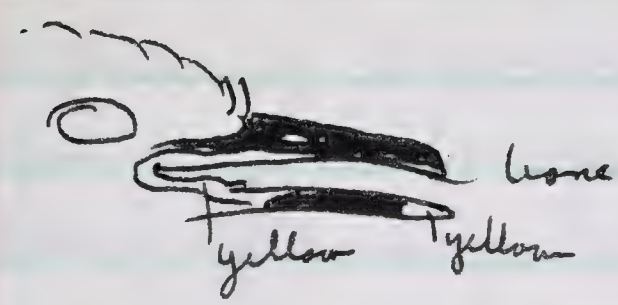
1) Pipilo — 1 seen singing in small oak 2) Troglodytes brunneicollis — abundant in understory and especially around logs on the ground. Young out of nest 3) Piranga flava — several seen. 3) Caprimulgid — collected 2 juveniles — heard a bird calling just at dark from in trees near tent ⌐⌐ ʼ — a whip-poor-will call but distinct from call of C. vociferus of Chiapas highlands, being less clearly whip-poor-will. 3) Red-Warbler — common.

Several wrens collected today are in beginning molt of wing and have small gonads. Others are apparently just beginning the breeding season as I took ♀ ready to lay eggs. This is odd ~~when~~ because C. m. nelsoni now has young fully grown.

Small boy here called my wrens "Matráca" ~~"Matráculа"~~.

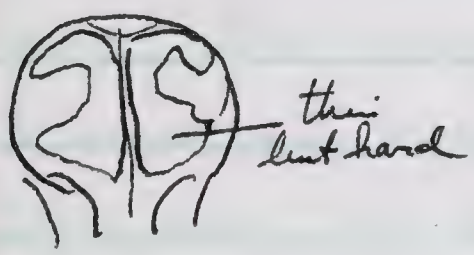
Condition of skull of C. megalopterus

2421

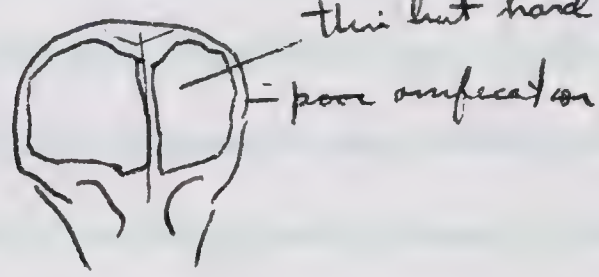


Black area becomes reduced on lower mandibles in slightly older birds. Probably is all gone by time post-juv. molt is finished.

2431



2432



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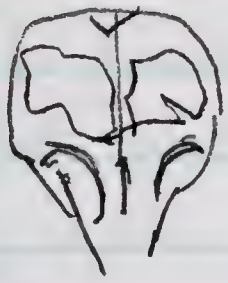
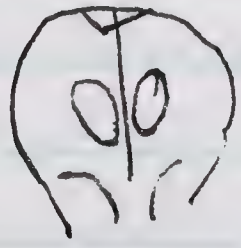


2434



2435-

Same as 2431 but thin area thicker & beginning to ossify?

1 Km. W Puerto Garnica, ft., Michoacán

June 9 Hunted 2 hours early in morning (before 9), taking 12 specimens of C. megalopterus, including several in juvenal plumage. 2 groups represented + 2 other odd birds. Rain in afternoon. Shot all birds a short distance from camp — 6 from one group belonged to a group of 8 or so found just across the highway from our camp. The wrens are fairly evenly distributed through the area with probably 1 group to every block or two of area. — Down the logging road from camp many of the larger trees have been cut and in the open areas where shrubs & large timber are common I did not find wrens. Most of the region has been lumbered but good thick stands remain despite removal of some of the trees. Probably pine is commonest tree with fir and an occasional giant tree being about equally common and almost as common as the pine. Most of the trees are giants. There are some young firs and pines growing in some areas which have been cut over. Manzanita on some drier slopes.
(This forest corresponds to the cloud forest of Blake and Hanson described on Mt. Tancítaro, Michoacan.)

July 10 Hunting from 8:30 - 12:30. Noted birds were mostly feeding silently, although once in a while a group would burst into chatter — but this was not sustained. I had to locate birds by hearing soft che-che notes which seem to be foraging call. If disturbed or sometimes when I saw no source of disturbance the che-che

1 Km. W Puerto Garnica

✓ June 10 call would be expanded into land long che-dit che-che-dit calls given by several birds of a group. I saw no chasing of pairs today.

Saw a nest in a small, strongly fir, — about 25 feet up on a nearly horizontal limb. Nest was oblong & very bulky. Activities of a group were centered around this area & I saw one bird visit the nest for a few moments. The nest was at the edge of an open area.

Birds feed along branches and especially on our clumps of pine needles — Often hang upside down for a moment. From detect no differences in feeding methods between this species and zonatus.

The calls are probably not so similar to ~~megalopterus~~ zonatus as I at first thought but the differences are difficult to record. The ⌊⌋ ⌊ ⌊ ⌊ call of zonatus is used only very infrequently — but the stage of breeding season is not comparable. Megalopterus is much less vociferous but, again, the season is not comparable. — In any event I doubt that differences in call, songs (if any?) would be barrier to interbreeding — they are that much alike.

Che-che-che che-dit — common call.

Other birds noted: Chickadee; brown creeper, Pipilo, raven, Steller jay, red warbler, ant-eating woodpecker, Piranga flava, Atlapetes pileatus, large woodhewer (collected), Catharus sp., Turdus migratorius? x

1 Km. W Puerto Garnica

✓June 10 Today a Méxican boy brought us a young *Pipilo* which he claimed to have found out of its nest. We are going to attempt to raise it. The tail is stubby (½" or less long) but the body feathers are well-grown. Its note is a "chreep" — rather "hard on the ears" at close range. Once it gave a chit-chit-chit-chit-chit — chatter (softly) as it attempted to remove a piece of cotton from its head. Sleeps with head turned back over its back. The same boy brought a young — nearly fledged *Turdus* — but we decided against attempting to raise this bird. Hope to be able to feed the *Pipilo* some seeds in addition to insects we can capture. Méxican name: "Cabeza prieta"

~~South~~ North of the highway the mountain slants off to a valley about 3-5 miles distant. There is a line of mountain in the distance which appears forested.

~~June~~ 11 There is a good bit of fog here — rolling in about noon and followed by rain in the afternoon. Fog seems to hit just the tops of the hills.

✓June 11 Plants: encino, cucharo (veined-oak-like), capulin, ohancha. — all except "square-leafed one are big trees. I see no oaks, I was mistaken before. But then [illegible]

photos { (Took Roll 31 - B.&W. + part of Roll 32 - color.) (Took a bit lower ~~and lower~~ along highway near camp.)

Drove to Morelia and then to Irapuato. Noted many chats in desert vegetation near the "lake" we crossed but no wrens.

R.K. Selander, 1954

Irapuato, Guanajuato to Ixtan de Sal

June 12 Spent last night in hotel and all of today at Lamb's studying his note book. Got thru his recent records — all but a year which Moore has — and most of records from 1941 — on.

Spent night at Lambs. He gave me three boxes of birds to be sent to Moore Collection. Also I took a tray of wrens which I am buying from Lamb. He wants $1.25 each.

June 13 Drove thru Queretaro, Acambay, etc. To Ixtapan de la Sal.

above Acambay

June 13 ~~At Km~~. took picture of oak-manzanita woodland. This veg. is on the low hills in this area while the valleys are barren except for a few small cactus. Possibly gularis is in oak. At Acambay you enter the northern part of the Toluca Valley after passing thru somegood oak woodland. The northern part of the valley is in farming or pasture and is similar to the southern portion. Absolutely no habitat for wrens. Stayed at hotel in Ixtapan de la Sal.

Vicinity of Ixtapan de la Sal

June 14 Hunted about 3 mi. from Ixtapan de Sal and at some elevation on road to Coatepec in a stand of juniper and leguminous short trees. Saw Thryomanes bewickii, goldfinch, and Melozone Kieneri. We are apparently below the oak belt. The region is farmed and the flat valleys are either in corn or ore bare except for a cover of grass.

Hunted along stream (first one crossed after leaving Ixtapan) just before it goes into dop gully. Veg: few small junipers and mixed leguminous & broad-leafed elements - similar to last place I hunted. Saw goldfinch (abund ant), blue mockingbird, T. felix — — - - - = song, canyon wren, cliff swallow nests on cliff.

Took picture of Taxco Mts from not far down road from Coatepec. These seem more or less continuous with Toluca Mts. (#9)

Picture #10 looking S across arroyo which heads near Coatepec in which I hunted.

Picture #1 View of Tenancingo north of the town.

June 14 Hunted about 2 mi. from Coatepec in a gully and on a slope where there was good oak mixed with legumin ous trees from lowlands. This was thicker vegetation than at Tzitzio but even so it seemed to be suitable habitat for gularis if not jocosus. There were some junipers mixed in with the oaks and also an occasional pine. 500 feet up the slope there was a good pine forest. Along the stream which was deep in the gully there were a number of small trees + shrubs + vines - mostly temperate & brush. Saw blue-mockingbird, Bewick wren, black-headed grosbeak, silky flycatcher, goldfinch, Melozone, Turkey vulture, painted redstart? but no Campylorhynchus. Hunted 2½ hours. at 3:00 P.M. it began to rain so we left and drove to Toluca.
In climbing over the hills from Tenancingo you cross some good oak and pine forest. Noted one of the places we had hunted near Villa Guerrero in good pine-oak forest. After Tenango you are in the Toluca Valley proper once more.
The Taxco Mts seemed continuous with the southern extension of the mts from the Volcan de Toluca. They looked very large.
3 mi. S Tenango swifts were flying - weather stormy with the rain front approaching rapidly from the south. Shot 4/ Cypseloides and saw dozens more - also a swift about twice as large as the ones I collected.
Veg. - pine forest - partially cleared - mountainous.

June 14 From Toluca we drove to Quinta Mitzi Motor Courts in Tuxpan, Mich. After climbing several miles thru tall, straight pines we hit ~~Leg~~ Lengua de Vaca where firs are common. On the western slope of the mt. the land is cleared almost up to Lengua de Vaca. Stayed night at Quinta Mitzi.

June 15 Drove on west to Pátzcuaro, Michoacan. (Noted that sign said "Puerto Carnica", so Sibley's spelling was correct and the "Caninos de Mexico" book is wrong — still the natives there say "Garnica" Before entering the Patzcuaro basin I hunted for 15 minutes in a stand of tuna cactus — leguminous a brood-leafed shrubs of short trees along the highway. From all appearances this is good habitat for brunneicapillus — at least the growth form is very similar to places where that species occurs farther north. It is the same formation that occurs near the lake south of Irapuato and which we hunted several days ago. Again I found the chat common but no cactus wrens. It seems remarkable that the chat should be present here and even more strange that its call is so much like that of C. jocosus. There is some of this vegetation type in the Patzcuaro basin but much of it has been cleared. It is rather dry around the lake itself — more so than I had expected — the oaks do not extend down to the water as I had imagined. Gulosis

15 mi. NNW Tacámbaro, 9000 ft.,

✓ June 15 may occur in the desert vegetation around the lake. Driving south of Pátzcuaro we entered good pine and oak woodland — especially good 5 mi. S. This is where Lea & Edwards took gulonis. At the branching of the roads we took the right road leading to Arío de Rosales — this did not climb much — only to ±8000 feet maybe less and there was no good forest along the highway. Apparently this road skirts the higher country while the road to Tacámbaro climbs into higher country. Rain falling very heavily and a heavy fog made driving difficult. We then returned to the fork of the roads and headed out towards Tacambaro finally camping at the summit of the road — ±9000 ft I judge. Rain falling as we set up tent and continued thru most of the night. Cold.

✓ June 16 Up at 6:00. We are camped in a stand of Arbutus near the highway. Near our camp is an old, tall oak tree covered with moss and other epiphytes. There is a cleared field — then another row of madrone — another cleared field — and finally a stand of timber on a sloping cerro. The flat land is either in corn or grazing but there are stands of timber remaining on the hills and slopes. However, the timber stands adjacent to the fields have been cleared — ± ½ of the trees cleared I judge — for lumber? or for ~~fe~~ fo other reasons. On higher slopes some distance off

15 mi. NW Tacambáro

✓ June 16 the timber stand looks more virgin. I hunted in a stand of fir and pine with several other broad-leafed evergreen trees (identical with those at camp near Puerto Cortez). There is a good understory of young trees, shrubs & herbaceous elements - due in large part to clearing of the original timber. From superficial appearances the stand looked too "thin" to support worm but they were fairly common and I took 11 specimens in 2 hours. The tree remaining are about same size as those at Puerto Cortez — giant pines & firs and probably many of the larger trees have been cut down. There are more bushes here than at the other camps, however, a few oaks are present.

Local name of C. megalopterus = "tonaja".

As I arrived at edge of the timber I heard the calls of megalopterus - a group give chē-chē or chā-cha, which I recognized. The group was in a stand of small firs (10-12 feet high) and various large bushes & small broad-leaved trees. By squeaking and using a wounded bird to bring in the others I collected 8 specimens - the entire group I believe. This included 4 juveniles. Juveniles definitely less wary than adults. Once one bird (adult) flew almost into me and then swerved to ~~alight~~ land on a vertical tree trunk after being attracted by distress calls of a wounded

15 mi. NNW Tacámbaro, 9000 ft.

June 16 bird I was holding. Excited cha or che calls were given by all birds. I could detect no difference in those of the juveniles as compared to those of adults. A flock of young Cyanocitta stelleri came to my squeaks and those of the wrens as I hunted, crouching down beneath a broad crowned tree.

I then walked up the slope and collected a Troglodytes brunneicollis is a cut over area near fallen trees. This seems prefered habitat of this species — i.e. several fallen logs and secondary growth of trees & shrubs. This bird is much lighter in color than those from the Volcán de Toluca —— Call notes — nasal cheee — are identical, however. Heard Pipilo calling and saw black-headed grosbeak (common), Atlapetes pileatus (one collected), and several other Steller jays. Oriturus is present here also, especially in the oaks (few, scattered) & madrones near the tent. About 1 hour after collecting the first group I found another loose-knit group on a neighboring slope — feeding in huge pines and fir & an oak. Saw one bird work along horizontal branch of a moss-covered oak, then hang upside down and forage for at least 30 seconds. Foraging occurs at all levels — even down to smaller trees & shrubs, but mostly the birds are high in the trees (up 100 feet or so). This group was silent except for an occasional short period

15 mi. NNW Tacámbaro, 9000 ft.

✓ June 16 of calling. I collected 2 birds as they foraged silently about 10 feet above the ground. Then a lone bird flew into a large pine and gave a harsh call (not remembered) and I collected it also. This call may have been an attempt to locate other birds of the group.

These birds have a triplet call which I have never heard zonatus give. I did hear a similar call given by nelsoni, however. - a long call: Chē - chē - chē > che-che-che, che-che-che etc, etc the triplets coming very fast and producing a "rolling" sound — the notes almost seeming to overlap one another. This may be given by more than one bird. I did not hear any "flight calls" today. Calls of these birds do not differ from those of birds collected near Puerto Carnicá. This species is always found in groups - they may be "compact" as the first one encountered today or more "open" as the second found today. The calls - at least some of them - probably serve purpose of keeping the members of the group in contact.

— Martins (sp?) flying over camp in late afternoon with some swallows.

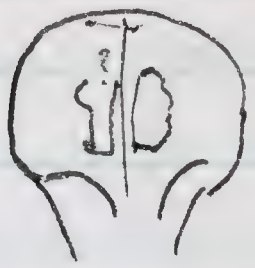
Took 6 or so color photos of this area, including several of slope where I hunted this morning.

Cleared a bit just before dark after 2 hours of rain this afternoon.

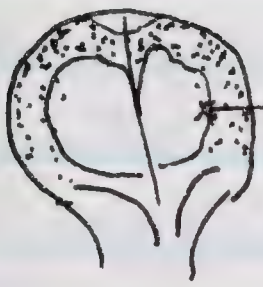
Condition of skull of Campylorhynchus.

2455

2451



2456



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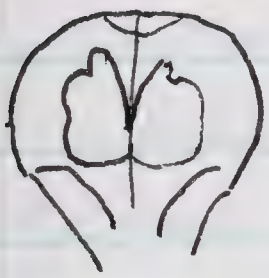
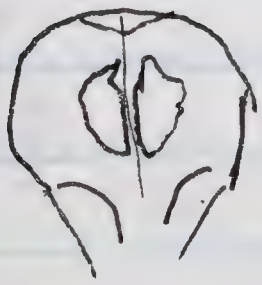


Megaloplanes

2453

2450

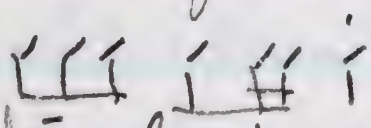


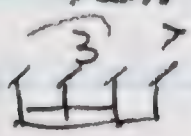
15 mi. NNW Tacámbaro

√ June 17 Lea & Edwards must have taken a side road from the highway to find "pure stands" of fir which they describe. They may have reached a higher altitude than that at which we are camped. Probably there are stands of pure fir higher up.

~~June 18~~ Hunted 4 hours on other side of camp. Saw 3 C. megalopterus and shot one. Habitat was good but most of my hunting was too late in the day. Rain in afternoon & night. Hunted 1 hr. in afternoon.

√ June 19 I hunted 2 hours in early morning in the area where I collected wrens day before yesterday, collecting 4. Made following notes on calls:

①  — given by a pair of birds more or less in unison.
Ché

②  , etc, etc. — very fast, excited call.

③ che-chit — common note — possibly forage note. This is usual call heard — may be followed by loud chatter.

④ cha-chu-ché, etc. — 10 times or so — One
└ 3 ┘

bird gave this very loudly — Sounded like a song. In any event it was much different from usual noises made.

Apparently a good bit of foraging takes place in undergrowth beneath tall trees. Found two birds in this today.

Vicinity of Pátzcuaro

June 18 Drove down to Pátzcuaro and stayed in hotel where we skinned birds. Before going to hotel I ~~June 20~~ made short hunts — one at a point 2 mi. S Pátzcuaro in more or less cut over dry, open pine forest and the other in good oak forest or thick woodland 5 mi. S. Blue mockingbirds, Turdus assimilis at latter spot but no wrens at either place. Still it was in afternoon, birds were inactive and my hunt was limited.

June 19 ~~20~~ Immediately surrounding Lake Pátzcuaro it is dry and there is a mixed stand of some cactus & leguminous low elements. Just a short distance up on the slopes from the lake pine forest begins. S of the lake this soon gives way to a rather humid oak or oak-pine forest. I hunted for several hours along rock fences near Chupícuaro in cactus, leguminous bushes & other low vegetation. Chats = Pipilo fuscus were abundant. Song sparrows along the edge of the lake in semi-marshy situation — but no cactus wrens. A few T. helvineki. I wonder if gularis doesn't occur in the neighboring pine forest = "overflow" into this desert vegetation near the lake. We didn't investigate the pine woodland near the lake today but made a stop 2 mi. W Zacapu in good pine-oak woodland — rather dry, open, with no or little understory — saw plain too. — Where I found gularis common and

2 mi. W Zocalpa, 7000 ft.

June 19 collected 14 specimens in an area of 1 sq. block. This neg. is more or less continuous from near the lake to a point 20 mi. or so west of Zocalpa where you descend to lower, desert country. Oaks very common & big in some areas; others such as the place where we collected seemed drier. Saw a nest in a pine 40 feet or more up in a crotch; another possible nest in another tree. There is a red-wooded type evergreen tree very common here. Wrens were in groups — adults & young. Can't be sure of make up of all groups but took ♂, ♀ & juv. from flock of 5 birds. The ♀ seemed to be laying — a second brood?. I was first attracted to birds by hearing a call — long nasal — given by a female which was in next-pine tree. She flew down to a dead bush (3 feet above ground) where I collected her. Flight seems identical with jocosus & like jocosus long flights are taken. Birds seem less wary than jocosus but then neg. is more open & land around birds. Young (ie. juveniles) are especially tame & easily approached. They seem to give same calls as adults. Run along branches of pines and other trees working at a variety of levels but I think mostly low as they do go to the ground. Keep up almost constant chatter — especially when disturbed. Even after one or two birds of a group have been shot the others will sometimes remain

Guadalajara → Tepic, Nayarit

✓ June 19 calling in the tree. There work in toward the trunks of the trees - not out on fine twigs - this seen again & again. Calls are almost same as jocosus. They have the deep "cactus wren" call as well as more nasal-type notes. There is little doubt of the similarity of note. Certainly there is no melodious song. I cannot describe the notes as a "rattle" as does Pitelka, however.

We drove to Guadalajara & stayed in a motel where I skinned 7 birds before going to bed at 12:00. Crossed good brunneicapillus country before arriving at Guadalajara. There is no pine - oak veg. in the area - must be a good long break in the habitat of guloris unless there is connection S or N of the Guadalajara area. Fair cactus wren (brunneicapillus) habitat in region of Zamora, & Lake Chapala - but it is probably not optimum.

June 20 Up at 8 - skinned rest of birds and spent rest of morning shopping for pottery. We then drove to Tepic, Nayarit, crossing fair desert (cactus wren habitat) and then descending from the plateau thru a very long, winding barranca where there was good arid tropical desert, note unlike that in Oaxaca. A few mangos & bananas grown here. Finally climbed a bit thru rather dry pine forest & entered valley of Tepic. Stayed in hotel. In late afternoon we

Vicinity of Tepic

June 20 drove S of town to try to locate Lamb's collecting areas - supposed to be 3 mi. SW, 3 mi. W, & 6 mi. SW Tepic, 3000 ft., There is a mt. SW of the town covered with dry pine forest & some oaks but you must go S more than 6 mi. to reach it near the road. Lamb may have actually taken a dirt road (if there is one) SW of town to get to this point in 3 mi. — but I doubt it. Rained hard just as I was going to hunt up the hill into the pines so we returned to the hotel & went to a movie. Feeling a little better today but we both have colds & can't seem to get rested, despite a good sleep last night.

June 21 Drove to a point 12 mi. S Tepic, 31 00 ft., where I hunted for in low oak stands for several hours. Calocitta was fairly common and I collected one. Calls very similar if not identical with those of birds in Chiapas. Green jays present. Troglodytes sp. common & singing. Also a motmot and a large trogon present. No cactus trees.

Hunted for several hours 7 mi. W Tepic, walking up to stand of dry pines on top of hill. No cactus trees. Forest being cleared for agriculture.

Then drove to Mazatlan, descending to coast thru a long winding barranca soon after leaving Tepic. Good arid tropical veg. extends for up this barranca.

Stayed night in a motel.

Mazatlan

June 22 Drove from Mazatlan to Ciudad Obregon and stayed in motel. Vegetation along way very dry - a uniform thorny vegetation. Bought a parrot at a pt. 1000 Km S Nogales.

June 23 Ciudad Obregon to Tucson, Arizona. Crossed border without trouble.

June 24 Tucson to ~~Flagstaff~~ Vermillion Cliffs, Ariz. - Camped for night.

June 25 Drove into Salt Lake City, Utah, arriving 4:15 P.M.

June 26- Salt Lake City.